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ABSTRACT

This study has three major purposes: (1) to design the educational specifications for a program to train junior college instructors; (2) to outline the academic requirements for such a program; and (3) to suggest the establishment of centers where this type of program could be carried out. The proposed graduate centers would provide leadership for the entire junior college movement and would encourage a spirit of experimentation in both the organizational and operational aspects of the movement. The author discusses in-service and pre-service programs for instructors at the centers; special problems related to staffing the programs for career and occupational students; and the variety of services that could be offered to community colleges by the centers. (BB)

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FACULTY FOR TEACHING - LEARNING

Proposed New Graduate Centers
for the
Systematic Preparation of Community College Teachers

PART I

February 1970

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UNIVERSITY OF CALIF.
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JUNIOR COLLEGE
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Preface and Acknowledgements

In April 1968, the U. S. Office of Education received a request from the Union for Research and Experimentation in Higher Education (UREHE) for funds to conduct a "Research Study for a Proposed New Masters College for the Preparation of Junior College Teachers." The project idea was conceived by J. Dudley Dawson, Vice President Emeritus of Antioch College, who became its Director when support was granted under the Education Professions Development Act (EPDA). The writer of this present study was granted a leave of absence for its preparation during August 1969 through February 1970 from his position as Director of the Division of Two Year Colleges in the New Jersey Department of Higher Education.

The format for the investigations to accomplish the study's objectives included an examination of the literature dealing with general or particular aspects of the issues involved; analysis of extent and proposed programs directed to analogous goals, including on-site visits to several; interviews and extensive correspondence with authoritative individuals in higher education; consultation with a formal advisory board; circulation of the various evolving stages of the study for comment from interested and experienced experts; use of several consultants to prepare studies in specific areas of importance to the design of the academic model; and exploratory discussions with officials of government agencies, universities and colleges, and faculty and professional organizations who share a concern for the establishment of such new preparatory programs.

The appendices to this study contain a bibliography as well as lists of persons, programs and institutions cited and/or consulted in its preparation. The bibliography is neither meant to be an exhaustive compilation of the literature pertinent to the concerns of this study, nor even to reflect the full range of books, articles and reports examined in the course of its preparation. Rather, it reflects only those documents which were most helpful to the writer. An editorial prerogative has been exercised in reducing to a minimum the footnotes and textual references to works cited. It was not believed that the alternative would have added anything substantive to the issues discussed, the analyses presented, or the arguments made in behalf of the elements recommended for the proposed program. Works cited in the text have been sufficiently described, however, to make possible their complete identification from the bibliography.

The investigatory technique of distributing questionnaires eliciting a wide range of opinion from the community college movement on the elements to be included in the proposed preparatory program, was not used although the original proposal had contemplated employment of such devices. Several such surveys already exist and have been cited where appropriate. In addition, it was felt that such solicitations of opinion often result in little more than "shopping lists" of desirable characteristics, lacking any organic continuum between the elements favored. The responses would also tend to weight the study with opinions of a least common denominator nature.

In addition to the great debt of thanks the writer owes to the authors of the many works, studies, reports and observations cited in the text and listed in the appendices, he wishes to particularly acknowledge the assistance of several individuals for their wise and patient counsel. For assistance on specific aspects of the study, special thanks are given to Dr. Rita Johnson, Regional Education Laboratory for the Carolinas and Virginia, for her significant contribution to the discussion of learning objectives, and Dr. Raymond Miller, San Francisco State College, for his similar help in the analysis of interdisciplinary approaches.

In addition, acknowledgement is given to Dr. Duane Anderson, University of Iowa, for helpful advice on the program sequences. Also to Terrence Tollefson, David Tucker, and Patricia Young of the New Jersey Department of Higher Education Division of Two Year Colleges, for their respective important assistances on the program for career occupational faculty, the nature of current demands for curriculum reform, and the responsibilities of teaching faculty for counseling.

Among the many persons who so courteously and thoughtfully responded to drafts of the various stages of the study, giving generously of their advice, space will permit the singling out of only a few. Special thanks, however, are due the distinguished members of the projects' Advisory Board listed in the appendix, for their assistance in establishing the scope and direction of the study, and for their many general and specific comments; Dr. Richard Bjork, President of Richard Stockton State College, for his trenchant observations throughout the document; Dr. Dudley Boyce,,President of Golden West College, for his advice on the organization of the study and the benefit of his many years of experience in the community college movement; Dr. N. Dean Evans, President of Burlington County College, and Dr. Frank Conary, Dean of Curriculum and Educational Systems at Brookdale Community College, for their general encouragement and counsel on the learning for mastery strategy and related techniques.

Above all, the writer has grown in his comprehension of the objectives of the proposed program, and his awareness of good and better methods for the presentation of ideas, through the patient and informed editorial guidance of two friends and colleagues, Dr. Richard Greenfield, President of Mercer County Community College, and Dr. Henry Scott, Director of Private Colleges and Universities, N.J. Department of Higher Education.

For the opportunity to have become associated with so significant an attempt at solving so important a problem, and to benefit professionally in his own comprehension of the educational issues,

the writer is deeply appreciative of the role of several persons: Ralph Dungan, New Jersey Chancellor of Higher Education; Edward Booher, Chairman of the N.J. Board of Higher Education; and Dr. Samuel Baskin, Director of UREHE.

Finally, sincere thanks go to J. Dudley Dawson for inviting the writer to conduct this study in the first place, for his incalculable substantive, administrative, and personal help throughout the course of the investigations, and for the friendship and hospitality with which he and his wife were so generous.

Abstract of Study: Faculty for Teaching-Learning

I. Introduction

The new and manifold tasks American society is assigning to community colleges call for better and more systematic attention to the way we prepare their faculties. This was the underlying premise of the original proposal to the Office of Education. To answer the issues raised, the study has been directed towards three major purposes:

-To design the prospectus or educational specifications of the academic program proposed to prepare faculty for the community colleges;

-To examine the generic considerations which should govern the locusing and establishment of the proposed preparatory programs;

-To explore possible specific sites and/or institutions in which programs of this nature could be initiated.

Purposes outlined in the original proposal, "to develop students who understand and can function in the broader roles of teaching and counseling," and who also would be equipped to "participate effectively in the educational and administrative development" of the nation's community colleges, have been developed at length as have certain specific approaches to community college faculty preparation. All of the original elements have been retained though priorities have changed. Certain elements not included or only alluded to in the original proposal have been introduced where further investigation so indicated.

As it stands, the study describes the community college mileau, explores the viability of special faculty preparation processes to meet the movement's needs, and analyzes and recommends basic approaches to be incorporated in a new program. Not included is the applicability of what is proposed to the activities and responsibilities of faculty in all undergraduate colleges. Neither is the preparation of secondary school teachers included in the scope of the study though similarities exist. The hope is that the proposed program can strongly contribute to assisting community colleges to make good on the promise inherent in their being, or becoming, open door institutions with respect to admissions policy.

The centers should be fountainheads of leadership within the community college movement, not restricted to a narrowly defined function. For this reason, the study will address both in-service and pre-service training of teachers, the special problems related to staffing the programs for career occupational students, and the variety of services such centers can offer to community colleges. The centers should be imbued with a spirit of experimentation, both in organization and operation, and incorporate advanced educational concepts.

II. Relation to Characteristics, Responsibilities and Problems of Community Colleges

It is important to define the type of institutions the new graduate centers are designed to serve in terms of the singular features of community colleges, as well as the characteristics they share with other higher educational institutions.

Community Colleges are comprehensive, open door institutions in that they reject competitive standards of admission and restricted definitions of the compass of higher education.

Rather than sorting and denying, Community colleges should aid in the democratization of college opportunity in the United States, both for the general population and by giving high priority to programs for the culturally, educationally and economically disadvantaged. Certificates, diplomas, and associate degree programs increase the number of credentials channels available, but require multiple entry, exit, and crossover mechanisms to permit student flow from one type of program to another.

Such programs require a demanding focus on student capability, motivation and performance rather than on faculty interest. Concern for their students' personality formation, self concepts, socialization patterns and general cognitive development, as well as subject matter mastery, also should characterize these colleges.

A. The Student Clientele

Analysis of the typical present and expected future community college student's social status, ethnic and racial background, cultural and regional characteristics, career aspirations, and personal beliefs and values, suggests they are often older, receive lower mean achievement test scores, display scholastic disabilities arising from educational neglect, and are less homogeneous (though presently quite comparable in economic status) than other college students. Most are commuters and aspire to managerial and professional occupations. They are practically rather than intellectually oriented, eager for guidance, and likely to be more cautious and less confident in academic areas than they are in manual skills, as compared with other college students.

B. Achievement, Identity and Morale Problems

Despite their high purposes, the factor of student attrition is one crude indicator that community colleges have yet to attain their goals sufficiently. Failure to understand that their prime responsibility *is* for student learning, faculty uncertainty about the significance of their identity as community college teachers, the existence of a disabling tension between career and transfer program orientations, are among the factors functioning to impede the attainment of these goals. The proposed centers would give identity and direction to the quality of training needed by their faculties, and would contribute to the prestige and cohesiveness of the community college movement.

III. Are Centers Really Necessary?

A. Alternate Approaches to Improving Community College Performance

The fundamental assumption that present preparation of Community college faculty is insufficient, does not preclude that the proposed centers could well be augmented by other positive measures, such as use of performance contracts, merit pay procedures, problem identifying research activity, and changes in state requirements for faculty appointment and promotion.

B. Are Existing Preparatory Programs Adequate?

Since existing programs are slanted towards the needs of the scholarly, research-oriented Ph.D., alternative degree programs oriented toward enchancing teaching competency, emphasizing learning strategies and techniques, and a more generalized curriculum approach are needed. Furthermore, the present emphasis on scholarly research is likely to cultivate a disaffection toward community college students in general, and particularly those majoring in career occupational programs. The prevailing graduate school attitude of contempt toward pedagogical concerns is likewise self defeating if such institutions are to prepare properly trained Community college teachers. Such teachers should be prepared to analyze and propose varied solutions for the most pressing problems of instruction, to establish conditions of learning appropriate for a variety of students, and to identify non-traditional teaching ideas and practices, giving special attention to methods promising increased efficiency of instruction for large numbers of students. The new centers would permit the present Ph.D. programs to concentrate fully and more appropriately on the production of scholars and researchers.

IV. Pedagogic Concerns of Proposed Centers

The pedagogic aspects of the proposed new approach to the training of Community college faculty were selected in response to the previously identified institutional and student characteristics, community college achievement deficiencies, and identity and morale problems. One basic methodological element, "prefiguration," and three substantive elements, "learning for mastery," "re-organization of the curriculum," and "the college as community" are the primary elements.

A. Prefiguration: A Basic Methodological Element

To insure that the students acquire the necessary attitudes, perspectives, knowledges and skills, the structure, programs offered, and the attitudes and actions of the staffs at the centers should prefigure or anticipate, the professional work situations the trainees will encounter upon graduation. The institutional press of the centers should be a textbook that brings alive the learning strategies, the participatory decision-making process, and such desired pedagogic aspects of the program as an understanding and competency in utilizing an inter-disciplinary approach in curriculum construction, a strong concern for faculty and student interrelationships, an openness to experimentation with instructional processes, and a disenchantment with undirected conventional practices.

B. Fundamental Substantive Elements

1. Learning for Mastery

Since Benjamin Bloom's article "Learning for Mastery" directs faculty attention to how learning occurs and incorporates an approach which delineates goals and maximizes feedback and verification of results, his approach is strongly recommended as a component of the new graduate centers' programs. His basic assumptions are: a mastery strategy can be developed by determining how individual learning experiences can be related to the teaching process; most students can achieve mastery if allowed adequate time; specific objectives and careful planning are necessary to implement the various techniques of learning mastery, and to reinforce student motivation and produce behavioral change.

a. Setting Learning Objectives for Behavioral Change

The proper question to ask is what can the learner do as a result of instruction that he couldn't do before. It is assumed that teachers are change agents who must specify clearly for themselves, their students, and their supervisors the learning objectives and behavioral changes they seek, and must modify their objectives and teaching techniques to improve instruction on the basis of feedback from this total process. As a result, the teacher becomes an inquirer into the teaching-learning act, experiments with alternate objectives, methods, materials, strategies, and tests, and becomes more self directed and capable in diagnosing the varied causes of student failure.

b. The Abnormal Curve and Testing

The first essential to breaking with established grading practice lies in treating testing associated with the teaching-learning process (formative testing) separately from achievement or evaluating testing. Formative testing provides diagnostice feedback to the teacher pacing the student's work and helping motivate him at the proper time. Evaluative testing measures how well students are able to accomplish the behaviors specified by the learning objectives. Students know ahead of time the specific skills, attitudes or concepts that must be mastered and are judged as to how well they meet performance levels, regardless of how well others in the class do. No grades are recorded until after the objectives are mastered, and students still working or completing the course need not be penalized for moving at a slower rate. An abnormal curve on grade distribution should be sought, and can occur through use of a strategy to assist most students to achieve mastery.

c. Breaking the Lock Step

The reasons for breaking the lockstep or building block notions about class units, scheduling and attendance, and student-teacher ratios should derive from realistic appraisals of the skills or concepts to be learned. Units may comprise only a week or two of learning activity. They can distinguish specific factual knowledge from more complex processes of applying principles or analyzing theoretical statements. Differing student abilities require different time periods for learning, and the variable content of different academic disciplines requires variable student-faculty ratios.

d. Challenge of Technological Innovation

Innovations in instructional technology are to be regarded only as tools in the achievement of the goal of student mastery learning. They should be judged strictly in terms of their contribution to more effective, efficient, individualized, and still not depersonalized student learning. The proposed centers should prepare their students to make good use of technological innovations designed to facilitate the individualized instruction that would otherwise be impractical in a mass education setting. An imaginative mix of seminars, programmed sequences, multi-media instruction, workshops, academic gaming, and various sized groups in addition to recent "hardware" tools, should be used to prepare future faculty. Their prefigurative use should illustrate possibilities for adapting teaching-learning processes to student differences at all levels.

e. Accountability and Faculty Evaluation

The learning for mastery strategy, and the concepts discussed in setting learning objectives and striving for an abnormal curve in grading, all place most of the responsibility for student gain on the educational institutions and their faculties. Since the community that supports an institution has a right to expect a good product, the centers and their articulating colleges must develop procedures for systematic assessment of teaching performance and the achievement of student gain. Any evaluative device employed as a means of judging faculty retention, readiness for promotion, and pay increments is absurd unless a measurement of learning progress is an intrinsic part of the process.

2. Reorganization of the Curriculum

The achievement of relevance in curriculum requires that values be consciously incorporated in curriculum, that the needs of general education be considered, that undergraduate curriculums relate to major societal issues, that teaching be re-shaped along interdisciplinary lines, that the teaching-learning process be integrated with the fruits of research and application, that mechanistic foreign language requirements be dropped and that students participate significantly in shaping curriculum priorities.

a. Incorporating Values

Since no learning situation can be totally value free, values should be consciously and deliberately incorporated in the curriculum. All such values must be examined, debated, and ultimately accepted or rejected by the total college community, since as institutions they inevitably perform a socialization function.

b. General Education and Required Courses

For most college students, the lower two years of undergraduate education remains the period when a general education should be fostered, since effectiveness as individuals, as workers, as members of groups still entails possession of a shared general education base of knowledge, skills and attitudes. The general curriculum can functionally be broken down into the following divisions: Communications and related technologies, social and behavioral sciences and related technologies, science and mathematics and related technologies, arts and humanities and related technologies, and business administration and related technologies. Each student should be permitted some leeway in self-defining the mix of shared general education and advanced courses to support his chosen field of academic concentration. Independent study programs as part of or in lieu of regularly offered courses should be encouraged. The student should be given credit for their completion if he can articulate his learning objectives to the satisfaction of his advisory board.

c. Societal Issue Approach

Since students expect a visable relationship between knowledge and action, between the questions asked in the classroom and the lives they live outside it, the curriculum should not only incorporate some vision of an integrated educational objective, but one that also helps define the central issues confronting contemporary society. The issues examined should be those which are constants in our world, persistent in human affairs, and not merely current events headlines. Each center or college must have the authority to develop curricula and courses appropriate to their situations and clientele. An interdisciplinary mode is likely to prove most fruitful. The responsibility for each of the basic general education courses should be assigned to an appropriate interdisciplinary academic division, but personnel from other divisions should participate. Illustrative, although not yet fully satisfactory examples of what such courses might consist of, are given.

d. An Interdisciplinary Focus

Since the human costs of academic specialization may be as severe as those operative in industrial specialization, a "specialization in breadth" may be a healthier alternative. Many new discoveries in knowledge occur only when an interdisciplinary view is taken; emphasis, therefore, should be not on static bodies of present knowledge, but on patterns of knowing and recognition of interrelationships of knowledge. Perhaps the greatest justification for this approach is the revitalization it can cause in faculty thinking on subject matter organization and presentation. By definition, a discipline is a specific way of looking at facts, of filtering and organizing them. An interdisciplinary approach attempts to bridge the gaps between a discipline's limited perspective and the world of common experience, and thereby attempts to overcome breakdowns in communication.

Three distinct approaches to interdisciplinary study can be epitomized in the prefixes multi, cross, and pan. The multidisciplinary approach involves juxtaposing several disciplines. Cross-disciplinary work utilizes organizing principles which requires the learner to focus on relevant data unhampered by disciplinary boundaries, as in the societal or problem-oriented study described above. The most useful variant of this approach and the one recommended for the centers emphasizes organization by overarching principles, methods and arts of inquiry. For example, "organism--structure and function" may serve as the selecting conception for a course involving philosophy, sociology, biology, anthropology, and zoology. Pan-disciplinary methods, based on analyses of the structure of knowledge, do not appear to have reached the point of practical applicability.

e. Off-Campus Experiences

A posited objective of the proposed centers is the importance of overcoming the isolation chamber type discontinuities which often exist between the campus and the outside world. Off-campus work experience could contribute to the goal of curricular relevance by lessening the disparity between the professional objectivity which is the hallmark of academic work, and the personal subjectivity which often characterizes concern for society's objectives, styles and actions. Participating students will receive a realistic exposure to the rewards and drawbacks of their chosen field. Off-campus multidimensional experiences are expensive since they require skilled professional supervision and continuing evaluation of the student's experiences, work performances, and developing personal objectives. The mechanics of college operation, the curriculum, and the academic calendar must all be designed to reinforce the program. Various approaches are possible, including traditional work-study experiences and short term seminars offered off-campus by non-faculty experts. Supervised professional teaching internships discussed subsequently constitute another functional example of the use of off-campus multidimensional experience.

3. College as Community and Other Affective Concerns

Human activity and growth must give attention to both affective and cognitive goals, to emotional as well as rational elements in student learning. The centers must be concerned with learning goals which emphasize feelings, emotions, and degrees of acceptance or rejection, in addition to those knowledge achievements, productivity, and intellectual skills associated with the goals of the cognitive domain. The working graduate whatever his job or role, is placed in a matrix which requires his understanding, acceptance and ability to deal not solely with narrow factors of production, but also those of a human and interpersonal nature. Colleges should and indeed may realistically set and attempt to impart many of the objectives posited in the affective domain. The proposed centers and articulating community colleges would be derelict if they did not join in the effort to advance our knowledge in the field and make changes in affective behavior a co-equal objective of their teaching-learning processes.

a. Group and Interpersonal Relations and Counseling

Since the usual years of college attendance are a time when humans are particularly concerned with their search for identity and intimacy, faculty are called upon to respond intelligently and sympathetically to demands that their role encompass a variety of qualities, including that of parent-surrogate, counselor and friend. The teacher must not only know his subject matter field well, but also something about his students' growing self awareness. Future faculty must be assisted in comprehending the tensions inherent in their work; given opportunity to exchange ideas on these matters with their peers and teachers; exposed to alternate methods of handling typical problems that can arise; shown possible approaches permitting multi-level interaction among groups within the college community; and made cognizant of the sources in the community which can be turned to for assistance.

1) Organization of Student Personnel Services

Many counseling and guidance functions often assigned to student personnel departments cannot be properly accomplished through agencies wholly separate from the teaching faculty. Because community colleges do not call for scholarly activity on the part of their faculties, there is every reason to demand that they devote additional time to counseling duties in both the cognitive and affective domains. In the affective domain, this responsibility includes awareness of and attention to such matters as the student's self-confidence; mental sets toward the course material and educational program in general; and the influence on school work of impaired health, familial or job preoccupations. Responsibilities beyond this level of concerns should be assigned to professional counselors who would, however, be physically located within the academic divisions. A small centrally located student personnel services staff would be required essentially for coordination and in-service training purposes.

2) Group Process Procedures

Considered attention must be given to heightening faculty self-awareness and understanding of their impact in personal and group (including classroom) contacts, and to assisting them to improve their performances in such situations. Group process activity, such as encounter groups and sensitivity training, can facilitate understanding of group characteristics, development, decision making and other factors in organizational relationships. It can break down resistance to alternate methods of presenting materials and conducting discussions, provoke a tension that encourages emotional involvement and excitement for ideas, and build a climate which includes acceptance of different ideas. In short, such activity can facilitate the emergence of more open and honest relations within the faculty, and between them and students.

Despite certain criticism leveled at such procedures, with appropriate controls they can be effective. Only persons who are professionally trained should direct such activity and only approaches which are sociologically based and seek to foster communications and leadership skills should be employed.

3) Supportive Organization of Instructional Activity

The very manner in which instructional activity is organized can have positive or negative interpersonal and other affective consequences. For example, an "eight-pack" learning team approach would form cohesive student groups whose members can study and attend most of their introductory general education courses together. The objective is to develop peer-study relationships and minimize feelings of alienation. Lecture halls can be designed to permit the "eight packs" to sit together and function as units for discussion purposes. Such learning groups, with a faculty "don" or advisor, can foster the noncompetitive peer-group study relationships compatible with the proposed learning for mastery strategies.

V. Organization of the Academic Program

A. Academic Rigor

Since exclusive preoccupation with teaching-learning strategies can develop into pedagogic narcissism, a balanced emphasis on both academic proficiency and pedagogic responsibilities is advocated. The community college teacher cannot afford to possess an inferior academic competence to that of his research oriented colleague.

B. Degree Designations and Levels

The centers should award degrees which afford their recipients the status and credentials appropriate to the functions of community colleges. The normal B.A. or B.S., The M.A. or M.S. and the simple designation Doctor of Philosophy would meet these requirements. Most community college teachers would conclude their formal work at the masters level, however.

C. Length of Programs

The long interval which usually passes before a person obtains credentials for college teaching should be reduced whereever possible. Residency requirements should be structured to contribute to the student's personal growth and interrelationships with his faculty, and not measure mere time spent or endured on campus. What is proposed is the normal completion of the master's degree in four years following the undergraduate sophomore year, including one year of professional internship. The doctoral level would require one year of course work plus satisfactory passage of a comprehensive examination and completion of an applied thesis in the student's field of academic concentration.

D. Academic Emphasis for Center Students

Community colleges need teachers capable both of presenting general education introductory courses to all students, as well as those meeting their specialized subject interests and advanced course needs. The centers should prepare their students to handle each of these responsibilities. In keeping with their individual abilities and proclivities, however, the students could concentrate their work in either general or specialized directions. Teachers of general studies, for instance, would focus on a distinctive cluster of general education concerns, centered within one of the academic divisions. Each such student would then minor in a specific subject matter area. For example, he might major in human ecology and minor in bio-chemistry. Students essentially preparing to teach specialized courses would concentrate on a specific cross-disciplinary area, for instance majoring in political sociology and perhaps minoring in a cluster of general studies related to "technology and the social order".

E. Multiple Entry and Exit Points

The centers' programs should allow students to enroll at multiple entry points. The amount of formal education possessed by the candidate, his ability to meet "challenge" examinations, as well as the centers' evaluation of his pertinent work experience, would determine his entry level. The candidate's teaching objectives would determine his exit point.

F. Research Responsibilities

Since valid questions have been raised concerning the applicability of the standard research thesis in preparing community college teachers, the kind of applied research acitivity which the centers would require must be defined. Understanding of the importance and use of the standards of definition, observation and evaluation intrinsic to research activity are indispensable to any educated person. Community college teachers should be able to introduce their students to the investigatory techniques upon which discriminations are made between valid and invalid, significant and insignificant knowledge. Such teachers must, of course, analysis instructional forms and the development of instructional theory. They should be familiar with the precepts, methodologies and literature of research aimed at improving college teaching in general, and be particularly abreast of such research in their field of academic concentration. At the same time,the centers must be wary that such research does not become a preoccupation that overshadows the teaching function. A commitment to systematic investigation of the learning processes and instructional presentation can play the functional role in community colleges and the proposed centers of stimulating faculty creativity, intellectual excitement, dedication and morale.

G. Improving Teaching Competency

Impatience with bad college teaching is widespread among students, trustees, legislators, parents and taxpayers. The graduate centers must insure that their students acquire the attitudes, knowledge and skills necessary to teaching competency, an understanding of the background environments and intellectual and personal growth needs of students, knowledge of the purposes and sociology of community colleges, and a mastery of research, testing and learning process methodology. To accomplish this, the centers should synthesize substantive content and methodology, require trainees to engage in paid professional internships, and employ an interdisciplinary approach in presenting teaching competency sequences.

1. Avoiding the "How-To" Syndrome

Responsibility for improving teachers' competency should be assigned to a divisional interdisciplinary team in pertinent fields(e.g.,social and philosophical foundations of education, educational psychology and group work, instructional methodologists, etc). The case-study, problem-solving approach used so effectively at the Harvard School of Business should constitute the major "modus operandi" for professional workshops dealing with pedagogic questions. Case studies should stimulate feedback between the on-the-job internship experience and the formal course sequences. The workshops should focus on the role of the community colleges as human institutions responsible for student learning. Such a problem oriented case-study workshop approach, combined with small group seminars, independent readings, visiting lecturers and observational tours, would avoid the dessicated, textbook, step by step explication of the theories and problems of teaching, associated with traditional teacher college practice.

H. Pre-Service Sequences

1. Beginning in the Junior Year

A distinctive feature postulated by the original proposal to the Office of Education for the new graduate centers was to coordinate the upper two years of under-graduate education with the masters degree level program. As a result, prospective faculty can be exposed much earlier to the strategies, techniques and subject matter orientations considered desirable. Each student's faculty advisory committee would be responsible for supervising the candidate's program choices, including his field of academic concentration and the major and minor subjects. The semester hour components of the sixty credit undergraduate program could be composed of some 12 credits of required courses, a minimum of 21 credits in an undergraduate interdisciplinary major, 9 credits in a minor, 6 credits for off-campus activity, with 12 credits available for electives. Some qualified students would be permitted to substitute graduate level courses in certain areas. Graduates of this program would receive either a bachelor of arts or science.

2. Master's Level Program

The preparatory sequence at the master's level would consist of 32 semester credits the first year. The second year would comprise a supervised professional internship and related activities to strengthen the trainee's teaching competency. No separate master's level thesis or comprehensive examination would be required. Five courses totaling 14 credits would be required and six courses totaling 18 credits would be elected. Faculty advisory committee approval would be mandatory for course combinations elected in the student's field of academic concentration. All academic work normally would be completed prior to the assumption of internship responsibilities.

a. Supervised Professional Internships

The internship should constitute the summation of the teaching-learning process material offered by the centers at the master's level and must be closely supervised. The centers and the employer community colleges should accept joint responsibility for insuring the success of the internship. Functioning as an in-depth immersion into the responsibilities of community college faculty, the internship should require the teaching of only two sections of one course per week. This limitation is intended to permit time for participation in case study workshops and small group seminars back at the center, as well as time to prepare, observe, confer, do research and engage in collateral activity at the community college where the intern is assigned. Conceived of as academic preparation, the internship and workshop study would earn a total of 30 academic credits during the year. Collateral activities would consist of fifteen class hours of observation of other teachers' activity, and orientation to the college's personnel services, learning resource, developmental, community services, and career occupational programs, as well as its governance and administrative practices.

3. The Doctoral Program

The purpose in offering a doctoral degree in the new graduate centers would be to make available a more appropriate balance of materials for the further preparation of college teachers than is presently incorporated in Ph.D. programs. While most community college faculty would be sufficiently prepared for their duties by the strengthened masters program offered by the centers, some proportion of these staffs should possess the additional training represented by work at the doctoral level. The doctoral degree should require an additional thirty course credits beyond the masters, plus satisfactory passage of oral examinations conducted under the centers' auspices, and completion of an applied research thesis. The content level of the courses should compare in conceptual complexity, though not in narrowness of specialization, to those offered in other Ph.D. programs.

I. Additional Functions of the Centers

1. Inservice Sequences

In addition to their prime function of pre-service preparation of teaching faculty, the centers should provide inservice educational sequences for faculty, trustees, and administrators. Faculty prepared in the pre-service sequences will be incapable of bringing about desirable changes in community colleges by themselves. The centers must reinforce their impact via continuous upgrading and refreshment training offered presently employed staff. Among the matters of pertinent concern to this community college constituency will be theories of change, innovational approaches, guidelines for organization, and current ideas and developments in curriculum and instruction.

2. Career Occupational Program Considerations

The need exists to develop a mutuality of pedagogic objectives and approaches between the faculty in career and transfer programs. A significant number of the centers' inservice training enrollees will be faculty in the career occupational programs. The centers should incorporate a philosophy and programs designed to break down false dichotomies between general education, career, and transfer program responsibilities of comprehensive community colleges. An obvious activity would be to strengthen career program faculties' skills and understanding of their responsibilities as teachers, since practical experience offers no necessary insight into the problems of the teaching-learning process. Career faculty also should be assisted in obtaining a broad conceptual overview of their subject matter fields, as well as familiarization with available texts and course presentation aids.

VI. Institutional Setting, Financing, and Scope of Effort

A. General Considerations

Although the original proposal considered the possible need for a wholly new college to discharge the objectives of the centers, subsequent research indicates they would be more viable as components within established colleges or universities. This would offer immediate opportunities for technical assistance, academic status and accreditation which would not be possible if the centers were established from scratch. The centers should thus be located to permit them to pool the academic and research resources of established schools, with the "laboratory" resources represented by the articulating community colleges.

Although established within existing institutions, the centers need a semi-autonomous status to properly perform their functions. Financing would most appropriately be supplied on a continuing basis by the host institutions and state level community college coordinating agencies. In addition, federal, private foundation and private industry financial support would be especially important during the centers' formative period.

1. An Investment Not a Probe

To properly address the problem of community college faculty demand, three to five centers should be established initially as a major investment by our nation in such faculty preparatory objectives and processes. The dimension of this need is demonstrated by an AAJC projection that compared with the approximately 84,400 full and part-time faculty teaching in AAJC member colleges in the 1967-1968 academic year, that number in the subsequent decade will rise to a "low estimate" of 255,400 or a "high estimate of 406,000.

2. Organization and Management of the Centers

The major policy decisions and governance of the centers should reside in boards of trustees composed of representatives from the host institutions, the centers themselves, and the articulating community colleges. Maintenance of a spirit of experimentation in the centers will be best assured if all elements in their communities, including faculty and students, participate in the process of re-examination of old and testing of new programs and procedures. The role and responsibilities of the articulating colleges for the success of a center includes their conscientious participation in its activities, and their providing work environments supportive of the centers' objectives to its graduates.

B. Suggested Sites

Several possible sites for the proposed centers are recommended, including Western Washington State College, the University of Michigan, Rutgers University, Richard Stockton State College, and The Claremont Colleges. In addition to the utility of exploring possible additional locuses, it is recommended that the interested institutions form a consortium that will further elaborate the proposed centers' programs, jointly seek supplemental non-local financial support, and stimulate the establishment of additional centers in the future.

I. Introduction

The new and manifold tasks American society is assigning to community colleges call for better and more systematic attention to the way we prepare their faculties. This was the underlying premise of the original proposal to the Office of Education. This present study is intended to answer a major portion of the issues raised in that proposal. The study has been directed towards meeting three major purposes:

-To design the prospectus or educational specifications of the academic program proposed to prepare faculty for the community colleges;

-To examine the generic considerations which should govern the locusing and establishment of the proposed preparatory programs;

-To explore possible specific sites and/or institutions in which programs of this nature could be initiated.

The original proposal identified two general purposes of the new faculty preparatory process. These were "to develop students who understand and can function in the broader roles of teaching and counseling," and who also would be equipped to "participate effectively in the educational and administrative development" of the nation's community colleges. The original proposal likewise called for the incorporation of certain specific approaches to community college faculty preparation. Each of these general and specific recommendations will be addressed at length, including discussion of their justification, feasibility and relationship to other elements in the proposed program. Certain elements not included or only alluded to in the original proposal have been introduced in the preparatory model herein proposed, where the writer's investigations indicated they are essential features of community college responsibility and activity. All of the elements suggested in the original proposal are, in fact, retained by this study, although their priority and in some cases their interpretation will differ somewhat. The limitation of the preparatory sequences to degrees not going beyond the masters level, implicit in the title of the original proposal, is questioned however, as will be discussed later in the study.

The study describes the community college milieu, explores the viability of special faculty preparation processes to meet the movement's needs, and analyzes and recommends basic approaches to be incorporated in a new program. The study's attempt has been to formulate an organically related program not strictly delimited either by tradition or the desire for facile compromise with "realistic considerations." At the same time, every attempt has been made to conceive the program goals, and recommended strategies and techniques, in terms of their practical implementation. The study's purpose is to facilitate its sponsors' efforts to launch and/or encourage the initiation of the program recommended, in sufficient scale to have meaningful effect on our nation's community colleges.

The program recommended is not a careful prescription for a circumscribed series of minor reforms. The nature of the issues discussed require a full measure of change when contrasted with existent means for training community college faculties for their profession. The program proposed is based on a functional analysis of community college goals and faculty requirements, and is not a mere bid for status recognition for its graduates from the rest of academia.

There is virtually nothing in the proposed program which is an original conception of the writer. It derives its strength from being based on pragmatic responses to the problems identified and the objectives set for community colleges and their faculties. Most of the elements of the proposed program already are employed by institutions in various parts of the country. They represent the "best," most logical and coherent mix of strategies and instruments the writer was able to discover.

Unfortunately, it was not possible to make an exhaustive and definitive survey of all the possible locuses for such proposed centers. However, sufficient inquiry of this nature was undertaken to afford necessary minimal insight into the problems involved, since they obviously have implication for the design of the program. Moreover, several very hopeful prospective sites which were explored, and which will be discussed later in the study, indicate the program proposed is generally acceptable and feasible.

The applicability of much of what is proposed to the activities and responsibilities of faculty in all undergraduate colleges, particularly those at the freshman and sophomore levels, is clearly evident throughout. Only the sociology and faculty needs of the community colleges are specifically addressed, however. Securing the assents and commitments necessary for a program directed to that segment of higher education alone, will be difficult enough.

Perhaps with the validation of the proposed program demonstrated in the quality of its graduates, it will be considered by other types of undergraduate colleges for the training of their own faculties.

Concern for the preparation of secondary school teachers also lies outside the scope of this study, despite the similarity of many of the problems at that educational level. It likewise needs stating that some of the problems and characteristics of community college students which will be described, and the consequent challenges to their institutions, are the result of certain deficiencies of education at the secondary level. It would follow for some commentators that national resources would be better directed to improving high school education, rather than attempting to "pick up the pieces" so to speak, when the students reach the community colleges.

While there is obvious justification for continued improvement of the high schools, the student needs and characteristics which justify the proposed program will not disappear with the improvement of secondary education. Most of them are endemic to any universal or near universal educational system. Community college education is not elitist oriented. The responsibilities of its faculty should not be measured in terms of criteria and expectations formed in settings that do not undertake the massive challenge of making higher education available to the overwhelming majority of the population. The preceding remarks relate, in fact, to the one overriding concern which has motivated the writer in the preparation of this study.

This is the hope that the proposed program can strongly contribute to assisting community colleges to make good on the promise inherent in their being, or becoming, open door institutions with respect to admissions policy.

In the remainder of the study, the proposed preparatory programs will be referred to as graduate centers. While a full discussion of the characteristics inherent in such a designation will be contained in a later chapter on their administrative organization, it is necessary to note here that the title "center" is meant to connote their semi-autonomous status. It will be important that they function as relatively independent entities if they are to properly develop and conduct the type of program proposed.

These proposed centers should be capable of developing into fountainheads of leadership in the community college movement. No more than the community colleges themselves should the centers settle on only one narrowly defined function. For this reason, the study will address both in-service and pre-service training of teachers, the special problems related to staffing the programs for career occupational and marginal students, and the variety of services such centers can offer to community colleges. The centers should be imbued with a spirit of experimentation, both in organization and operation, and incorporate advanced educational concepts. Their programs should be founded on a commitment to continual reappraisal and renewal of their activities and approaches as new knowledge and perception is gained of the goals and responsibilities of higher education. Since the centers would prepare faculty for an institutional type that is itself only in the process of being realized, their graduates can constitute a significant factor in bringing such colleges into existence.

Throughout the study attempt has been made to contrast the existent preparatory processes for community college faculty, with the new kind of program proposed. It has been a genuine dilemma to attend to the need for precise formulation of objectives and recommended approaches on the one hand, while avoiding the construction of an overly prescriptive model on the other. The writer concurs that one should hesitate before discarding any present or future approach; that variety is not only stimulative to the communication process that underlies education, but can help assure an effective achievement of fundamental goals by keeping options open; that no specific curriculum strategy or group of requirements is sacrosanct. There is need, nevertheless, for delineation of the essential goals, the expected quality and level of achievement of the program proposed, and of defined methodologies for meeting its requirements. The writer is hopeful his readers will concur that what is recommended in the ensuing pages strikes an appropriate balance between the requirements for flexibility, and those for detail and direction.

The study contains generalizations and oversimplifications for which the writer accepts appropriate responsibility. His intention, however, was not to anticipate each and every nuance of the centers' activities, but rather to block out what appear to be those minimally essential elements to be offered their students. What follows, moreover, does not constitute a "finished" proposal in the sense of completion of a fully definitive model. There comes a time, however, in the preparation of any such study, when one's only recourse after a certain point is to stop, and offer one's proposals for responsibile examination and critique.

II. Relation to Characteristics, Responsibilities and Problems of Community Colleges

Several definitive reviews exist of those special qualities and problems of community colleges that distinguish them from other institutions of higher education, including junior colleges and technical institutes. One was prepared in 1968 by Edmund Gleazer, the Executive Director of the American Association of Junior Colleges (AAJC). More recently, an incisive critique of the movement with some "heretical concepts" proposed for its improvement was published by UCLA's Arthur Cohen. An authoritative overview of community colleges can be obtained from these two books, and the many general and specific works they reference.

For the purposes of this study it is nonetheless essential to define the precise type of higher education institutions which the writer believes the proposed new graduate centers should serve, and help shape in the future. The purposes and activities of these centers should acquire their definition both from those singular features of community colleges which are identified, as well as those functions they share with other higher education institutions. It also should be noted that the following depiction of community colleges is as much prescriptive as it is descriptive, although the characteristics outlined are regarded as at least nascent in the movement today. The new graduate centers cannot be justified if they merely help the community college movement "tread water." Their thrust and impact should be to help make actual, what appears most desirable.

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The community college concept is becoming inseparable in the minds of its leading spokesmen from their character as comprehensive, open door institutions. As such they should offer a diversity of educational opportunity for all recent high school graduates, and adults in general, who seek to advance and enhance their personal and professional development. The descriptive label "two year colleges" will not serve to define the centers' concerns, because the community colleges are carving out a role for themselves different from that of the traditional junior colleges. In the latter, student and faculty backgrounds, life styles, and educational goals are greatly dissimilar. Community colleges are different also in their rejection of the competitive standards of admission and more restricted definitions of the compass of higher education, which characterize many undergraduate colleges, whether of the two or four year variety. In short, community colleges are wary of the traditional college role of serving as "sorting and certifying" agencies at least in the sense that this can mean denying education to some people.

The extent and nature of community college enrollment growth in recent years, while not the intrinsic cause, constitutes the single most important extrinsic factor bringing pressure for the creation of the proposed new graduate centers. Their rising enrollments reflect the increasing thrust towards the democratization of college opportunity in the United States. Although enrollments at other undergraduate institutions also will mount, those of the community colleges can be expected to most prominently reflect the growing proportion of the population seeking college education. Master plan decisions to provide space in the community colleges for a significantly higher share of enrollments in the lower two years of undergraduate education would shoot their registrations even more rapidly beyond the two million national mark reached in the 1969-70 academic year. These trends signify an historic shift in the patterns of college attendance. Presently approximately 83 percent of entering freshmen in California attend public junior colleges. It has been predicted that in California by 1980, approximately 75 percent of all undergraduate students who will have completed their baccalaureate degrees, will have taken some portion of their education in that State's public junior colleges. (While the word "junior" is giving way to "community" in many areas and institutions, this is not always the case. Many of these junior colleges, usually located in the public sector, are community colleges in their orientation even if not in their titles, and do fall within this study's concerns.)

In addition to their massive numbers, the students in the community colleges increasingly represent a different type of challenge to our higher education system. It has become inappropriate to conceive of community colleges as truncated baccalaureate institutions; it has become as unacceptable for them to deny admission to the educationally "ignorant," any more than to the financially poor student. Their growing commitment to an open door on admissions, enhances their ability to contribute to the national effort to liberate people from entrapment in a poverty culture. It presupposes, in this writer's opinion, their giving high priority attention to programs specifically designed to assist the culturally and economically disadvantaged, as part of their regular activity, as opposed to "add on" or ad hoc projects.

The comprehensive and diversified academic programs of community colleges are, in fact, a necessary adjunct to these admissions policies. They therefore offer not only the curriculum counterparts of lower-division courses at four-year baccalaureate institutions, but much else as well: e.g., the 1966-67 UCLA general catalog listing of 195 different lower division courses, while nearby Fullerton Junior College was offering 483, in large part due to its well developed career occupational and remedial programs. Although excessive course proliferation is an institutional hazard common to all colleges, most of their diversity results from justifiable demands that the community colleges help close obvious local manpower gaps, and reduce the resultant alarming increase in the number of jobs and semi-professional positions which remain vacant each year. These new types of programs are designed to meet the increasing and unfulfilled demands for more complex training for an unprecedented number of people capable of working in a technologically dominated society. In this process of occupational training, they make an important collateral contribution to the solution of acute and pressing social problems. The community colleges are, in fact, receiving much of the brunt of mounting moral and political pressures to train the presently unemployable, retrain the technologically displaced, and upgrade the culturally deprived.

Likewise, the community colleges should seek to qualify greater numbers of people for employment by helping them circumnavigate the "credentials barriers" (as they are termed by the Ford Foundation's S. M. Miller), which keep so many out of decent occupational channels. This can be a particularly important aspect of their continuing education programs, for those who are no longer young, as well as for those youth who for one or another reason cannot, or choose not, to go the full associate degree route. By multiplying the number of credentials channels available (certificates, diplomas, short courses, etc., in addition to associate degree programs in applied technical fields), they can enable people to gain the necessary preparation for adequately compensated and satisfying job opportunities. In so doing, they introduce still further flexibility into a U. S. higher education tradition pioneered by the land grant colleges. Their contribution in this sphere of their activity, thus offers an analogue to the equity principle in law. For one consequence of our society's making higher education available to the many has been to accord full status only to holders of the higher scholastic degrees. Such community college programs can help temper this situation for those whose interests and/or circumstances rule out such a route to success and self respect.

Inevitably, the proper discharge of these responsibilities gives weight to functional characteristics which, even if not novel in higher education, demand renewed emphasis. It must lead, for instance, to the development of multiple entry and exit, and crossover and changeover concepts of matriculation to permit and facilitate flow within the various academic programs, as student career objectives mature. The mix of transfer programs with those of an occupational preparatory nature, sharply imposes the problem of how to handle real differences in students' objectives and capacities for college level work, while yet integrating both philosophically and physically the students, staffs, and courses of these diverse curricula. These responsibilities increasingly call for a systematic use of contemporary teaching-learning strategies, whose outcomes are measured against objective standards of achievement, to aid students in dealing with the multiplicity of ideas, data and experiences with which they are confronted.

Above all else, it calls for a commitment to the proposition that most students are capable of learning. It places the emphasis on what happens to students, not on what teachers do. The implications of so altering the force field in the relationship between teachers and pupils is to profoundly restate the premises of the educational process. Not primarily what faculty are and bring, but what students are and bring to the classroom, becomes crucial. What students need, want, and are capable of, are matters of fundamental importance not to be patronized, or measured and decided upon, within the framework only of the teachers' educational and social experience or intellectual powers.

The proposition demands respect for all students as worthy, teachable individuals, harboring latent talents indispensable to themselves and society. It demands understanding that all students, like the rest of us, require recognition and a sense of satisfaction from their work if they are to achieve. It demands an open faculty attitude towards the wide range of student abilities, and the complexity of diverse classroom situations they will encounter. And this must apply equally when a student's motivations, achievable goals and ultimate life styles are dissimilar from those of a person attracted to a scholarly, cloistered academic career or any other academic career for that matter. Faculty in the community colleges especially, must not view their function as a replication process.

Nor can community colleges be characterized solely by an orientation toward individual student learning and development, for they also should be committed to a role in community or public service. These are twin pillars of their existence, mutually supportive, and if one is faulted, the institutional purposes are faulted. Minimally their public service responsibility calls for cooperation and coordination with other local groups in stimulating cultural and social opportunities in the surrounding community. It goes beyond that, however. For while it would be pretentious for community colleges to believe that they can tackle all the ills of our society, there are aspects of these problems to which they can and should address themselves.

Through their dispersion and grass roots contacts, particularly in the urban areas, they are in an excellent position to focus attention on local environmental questions and social, economic and cultural development. They can serve as positive agents for change and should fulfill this function not merely passively, or even minimally, as they do in correctly responding to requests to offer particular career occupational programs. It has been noted that we already possess the "technology" to overcome many of our problems. To say that community colleges do not incorporate the specialists with all the requisite knowledges to solve our problems misses the point as to what is often really needed: not solutions, but applications. Community colleges should assume a role in many of these applied areas. Despite the thoughtful remarks of those like George Kennan, there appears to be no going back for most institutions of higher education, to an earlier simplicity of function and structure, much less "apartness from the world."

Nevertheless, it is in discharging their responsibilities for the individual student's total development, that the goals, quality and effectiveness of community colleges will be most importantly measured. All schools and colleges, both in their formal programs and as environments, seek to affect their students' personality formation, self concepts, socialization patterns, and cognitive development. The community college in particular should not assign sole priority to that final objective: the students' education in specific subject matter areas. Great importance should be given by them to assisting students to find their course in life, to achieving their own goals and potentials, and to living effectively in society.

The need for this order of priorities is especially underscored by the remarkable diversity of community college student backgrounds and abilities, and their frequent history of academic non-success. These institutions thus have a particular responsibility to incorporate the attitudes, learning strategies, and faculty competencies "to meet their students where they are." Pressures to expand educational opportunity thus not only call for building closer relationships between society and academia, but often also the rebuilding of respect for learning among students, as well as instilling the desire and means to continue their learning after departure from the formal educational system. They call for well conceived guidance and counseling systems which are an organic part of their faculties' responsibilities. They call for a heightened concern for interrelationships within the college community, and for increasing student sensitivity to the problems of their fellow men. They call for the incorporation of normative values and standards shaped openly and continuously with the participation of both the total college community and the wider community it serves and from which it derives its support.

A. The Student Clientele

It seems essential to further underline that learning cannot be properly accomplished unless the teacher is sensitive to such factors as the student's socio-economic status, ethnic and racial background, distinctive cultural and regional characteristics, career aspirations, and personal beliefs and values. These and other factors need to be measured as precisely as possible, and the findings should influence both the educational environment created and the instructional strategies adopted.

Patricia Cross' description of junior college students identified significant differences between them and their peers in four-year colleges in each of eight research categories: academic characteristics, environmental background, college cost considerations, self-concepts, interests and personality tendencies, motivations for attending and reactions to colleges, vocational choices and major fields of study, and educational and career aspirations. Gross' data, moreover, validated her general contention that "we possess only traditional measures to describe a student who does not fit the tradition." She notes further that the variability of community college students tends to be "leveled" by the use of research instruments and perceptions conceived on the basis of the characteristics of typical college students. Her analysis reinforces the now widely accepted judgement that traditional aptitude measures are often culturally biased against the so-called "disadvantaged" student.

The value of Cross' study thus in part lies in its establishing a basis for framing and testing more appropriate hypotheses, questions and evaluation instruments regarding the community college student bodies. In addition, however, and despite the caveats noted with respect to present evaluative approaches, she was able to conclude that "the research bearing on the characteristics of junior college students is now sufficient to permit some generalizations." Except where noted, the following summary is based on her synthesis of such "known" community college student characteristics:

- With respect to their academic ability, as a group community college students receive lower mean achievement test scores than comparably selected samples of four-year college and university students;

- They have often opted in high school for courses of study which bar them from entering four-year colleges; many display the attitudes and scholastic disabilities arising from years of educational neglect, necessitating developmental (remedial) programming and careful coaching in the practice of efficient study methods;

- They include a not insignificant number of students older than those normally attending four-year colleges;

- They are in every respect far less homogeneous, and less carefully "screened," than those students who enter other undergraduate colleges;

- Their parents enjoy virtually the same economic status as those of other college students (special data report secured by the writer from the American College Testing Program); parental encouragement and example, as well as the proximity of a local college, are evidently more important than economic or college cost factors in influencing decisions to enroll, and in establishing their educational interests and aspirations;

- They and their teachers are commuters, but this does not seem to impede their achieving the personal relationships and other benefits associated with living on campus (ACTP Research Report No. 28);

- Nearly two thirds aspire to managerial and professional occupations, although almost seventy percent come from the homes of unskilled, skilled and semi-professional workers;
- Their orientation to life, as does their choice of a college to attend, tends to be more practical (e.g., availability of applied college curricula leading to job, social and economic advancement), with their educational and career aspirations still lower and at the same time more unsettled,than those of students who begin their education in senior colleges;
- They are eager for guidance regarding future personal plans;
- They neither seek nor find an intellectual or scholarly atmosphere (in the classical sense), give less value to humanistic pursuits, and expect their future satisfactions to come more from business or financial success, than do other college students;
- They score lower than other college students on measures of autonomy and nonauthoritarianism, are more likely to be cautious and controlled, less likely to be venturesome and flexible in their thinking or choice of untried fields and pathways to success and financial security;
- As a group they are less confident of their academic abilities, more frequently critical of previous courses and teachers, and less frequently feel they would be rated as good or excellent students by these earlier instructors;
- Only in nonacademic abilities such as manual skills, sports or homemaking arts, do they express confidence in themselves in equal or greater proportion than their four-year college counterparts.

The preceding sketch of community college student characteristics is, of course, descriptive of the past. There are enrollment shifts in motion, however, which should reinforce the requirement that community colleges function as comprehensive teaching institutions. The high schools are under pressure, and are striving with hopefully increasing success, to graduate larger proportions of their students, who will thus be eligible to enter the community colleges. The present community college student enrollments, while not exclusively from the middle-middle and lower-middle economic ranges, nevertheless largely represent that population stratum. They do not as yet draw a proportionate share of their enrollments from persons in the lowest economic income ranges. Data possessed by the American College Testing Program indicates, in fact, a startling congruence between yearly family income status of students in public community colleges, and those attending all colleges throughout the nation. The chart which follows is based on voluntary responses to ACTP questionnaires, with the community college column representing returns from a single state. (However, these were found to be virtually identical with those obtained from other states with well developed public community college systems.)

We therefore may, or certainly should be, on the eve of a shift in the family income status of community college students, made possible in part by new financial aid programs directed specifically at lower income groups.*

One may further posit that scholastic success for students with really low family incomes, will generally be more difficult to achieve because of the correlation of that factor with other indices regarding their low level of academic motivation and preparation.

* That this shift can be justified even on other than moral grounds, is implicit in Theodore Schultz' pioneering work demonstrating that expenditures on education result in significant rises in economic development. He, and others carrying forward his early studies, give evidence that education is not, as had long been thought, solely a consumption item, but also an investment factor. They find, moreover, that the rate of return on educational investment appears to be higher than that on capital investment. Their findings thus wed the short term need for enhanced educational achievement to create viable career capabilities and fill manpower gaps, with long range implications for a thriving economy.

Yearly Family Income Characteristics, U. S. College Students, 1969, ACTP Survey

	COMMUNITY COLLEGE STUDENTS (sample state)	ALL COLLEGE STUDENTS
Refused to answer	6	4
Don't Know	21	22
Under $3,000	4	4
$ 3,000-$ 4,999	10	10
5,000- 7,499	21	20
7,500- 9,999	19	15
10,000- 14,999	15	16
15,000- 19,999	3	4
20,000- 24,999	1	2
25,000 and over	1	2
	101%	99%

(Deviation from 100% due to rounding by ACTP in the different categories.)

There is good reason, moreover, to believe that the skewing advocated in forthcoming enrollments will create further difficulties for community college faculty. As William Moore points out in his study of the odds confronting these "high risks" students, within this group there are several sub-categories to complicate the teacher's task, and little evidence of their academic compatibility even with one another. "There are more differences among marginal students than there are similarities," he notes, and from his personal experience furnishes case studies illustrating the fact that "high risk" students are not just those from our urban slums, as is sometimes implied. The sub-categories are actually combinations and permutations of a whole series of factors such as cultural environment, economic income, social class status, race, previous academic achievement and the presence or absence of psychological problems. Moore concludes that the learning process for such students, particularly those who have previously demonstrated low levels of academic achievement and motivation, calls for greater individualization, and understanding and skills on the part of their teachers.

With or without the passage of a comprehensive federal level community college act, as is now being proposed from several quarters, the "open doors" of these institutions do seem slated to swing even further ajar. Higher proportions than at present of high school graduates in the third, fourth and even fifth quintiles of their graduating classes, will enter the community colleges, under the push-pull impact involved in the establishment of more such institutions, and the construction of additional space and multi-center operations in the 950 already in existence. Student body heterogeneity will certainly be compounded if they become charged with educating a heavier proportion of all present undergraduates in the lower two years of public college systems.

It is the writer's further impression that as the community colleges admit higher numbers from the African-American and Hispanic populations, political pressures will inevitably be brought to bear upon them to aggressively recruit and admit students from the whole of our socio-economic underclass. In summation, therefore, expected future trends should signify a steady movement towards making two years of post high school education universally available in the United States (witness recent actions by the City University of New York),for a population as heterogeneous as any in the world today, and with the community colleges assigned a major share of the responsibility.

The summary presented of known student characteristics, coupled with the prognosis of forthcoming developments in enrollments, should suggest certain practical limitations on what community colleges can aspire to instill and change in their students. At the same time, it highlights their institutional responsibilities if they are to do more than merely reconfirm the patterns and impact of their students' previous educational and environmental experiences. Knowing and meeting students where they really are must temper our educational objectives lest we posit an ideal of learning achievement so far beyond their capacity and readiness, that only their own, and institutional frustration, can result. But neither should it justify leaving students "where they're at," in all but the most minimal areas of concern.

Nor should the need for a general overview of student characteristics be allowed to obscure the fact, as Moore correctly insists, that students can be assisted only when we treat them as individuals apart from sterotypical categorizations. The elements of the proposed educational program for the centers, and the criteria for recruitment of their faculty and students, must address themselves to all these constraints and challenges inherent in the above brief analysis.

B. Achievement, Identity and Morale Problems

Although many of the community colleges are taking on the singular features and giving definitive weighting to those responsibilities which have been outlined, these characteristics are by no means fully developed. Like latent images on film negative, they have yet to display their proper contrast with traditional practice in higher education. Incantation should not be confused with actuality, or honest hopes substituted for reality, as one thoughtful instructor indicated to Roger Garrison in his study of junior college faculty issues and problems. Arthur Cohen's judgements in this regard are quite caustic, and are seconded by John Rouche in an article examining the challenges to teaching in the two year colleges. He states: "While junior college pundits have been generous in identifying two-year colleges as 'superior teaching institutions,' there is massive evidence to indicate that instructional practices in the two-year colleges are the same as those practices in other areas of education where institutional goals, purposes, student populations, and faculties are radically different. Instructional designs and strategies suited particularly to the unique mission of the two year college have not yet evolved."

Despite misunderstandings of the concept, and the use of measurement scales that are often not comparable, the factor of student attrition (the gap between the number who enter and those who graduate) should constitute an important indice of community college achievement. If community colleges are in truth to function not merely as "sorting" agencies, but as institutions "with a difference," their achievement in this area must be improved.

Rouche notes that the community colleges are "sending disadvantaged students back out the revolving door at rates up to 75 percent the first year." He quotes Christopher Jencks' assessment that "the existence of these colleges has not improved the competitive position of the poor in any dramatic way." Data amassed for the New Jersey Department of Higher Education to assist in the development of a master plan for future college growth, indicates that during the period 1950-1967, in a broad sample of states with well developed community college systems, a quite constant figure of only about 17 percent of freshman entering these institutions, went on to graduate with associate degrees.

In assessing the last statistic, one must take into account several mitigating factors, as well as the fact that such data is based on measurement definitions which are not fully comparable. There are, after all, high rates of attrition at other public colleges, where the students enter with even high expectations for success on the basis of previous scholastic records and achievement test scores. The multiple exit features at many community colleges properly permits full completion of job preparatory programs at levels below the associate degree. Students in community college career programs like secretarial science often find that one year of such schooling is sufficient to qualify them for satisfactory employment, and leave, even though the college offers additional course work in the field.

However, even if the influence of all these factors were properly evaluated, the graduation rate would still be quite low.

Many of the community colleges do not perceive, moreover, that their prime responsibility is for student learning and academic success. A recent book by a community college president, Thomas O'Connell, states: "What about the key question...the quality of education offered in a community college? The fact that our attrition is high indicates we're not soft...about one-third flunk or quit the first year." One may fairly ask whether that statistic is an indication of quality, or a misconstruing of community college responsibility. A major aspect of the academic program of the proposed centers, it is therefore felt, should be the incorporation of goals and approaches to assist future faculty efforts to improve on this standard of achievement.

It is likewise unfortunately accurate to speak of an identity crisis in the community college movement. Faculty, especially, often are not wholly confident of their placement within or between secondary and higher education. Parenthetically, even though the ratio of community college instructors who began their teaching careers in the pre-college schools seems to have diminished somewhat from the more than two thirds figure Leland Medsker noted in an early survey of the movement, the fact remains that a significant proportion of their faculty were prepared for other types of educational settings and responsibilities. In many ways, pre-college teaching experience may be good preparation in making faculty receptive to the needs of their present students. But such orientation, if any, as they have had for their present specific duties, generally has been via haphazard on-the-job techniques, of varying length and quality. One result is that at times community college faculty share the sometimes accurate general public apprehension of their institutions as simply two more years of education beyond high school. Or they teach in transfer programs which slavishly parallel the first two years of the receiving baccalaureate institutions' curricula, whether or not these are appropriate to societal and student needs. Nor can the reasons for this be wholly ascribed to demands for program conformity from these senior institutions; too often neither the will to develop, nor the confidence as to what an alternate program should consist of, exists.

Similarly, the tensions inherent in the varied responsibilities of community colleges, could be better resolved. They often lack assurance in balancing the pressures placed on curriculum design by potential employers, with those traditionally forthcoming under the percepts of higher learning. They are torn between the need to respond to local community concerns, and those of the wider society. They often are frustrated by the pedagogical complexities involved in presenting college-level general education courses both to highly motivated transfer-bound students and matriculants in the technical programs, as well as to very academically weak students possessing neither motivation nor well defined or realistic objectives. In an article in the Junior College Journal drawing upon his survey of almost 700 instructors, Garrison found their goals often nebulous, their practices ill-related to their stated purposes, and quotes a typical question: "Are we teaching the essential things? How do we know that we are? How do we increase the sheer efficiency of our instruction? Exactly what is this college set up to do--and what is my (the teacher's) contribution to these...aims?"

The diversity, moreover, which otherwise typifies community colleges, extends as well to faculty background and educational preparation. Although the standard minimum requirement is for the masters degree, there is a fairly widespread practice of giving equivalencies for experience in the technical and other vocational fields. This practice, and the consequent heterogeneity among faculty should be regarded as a strength, but certainly not up to the point where academic and non-academic personalities typically "coexist...in barely muted distrust." Divisive attitudes frequently prevail between general education and career program teachers. Of course, the relative homogeneity of background which characterizes the permanent staffs of other undergraduate institutions, would be out of place in the community colleges, and may likely be a detriment wherever it exists. One can assert, nevertheless, that the healthy functioning of our community colleges would be enhanced if their staffs shared a greater common understanding of institutional objectives, and were properly prepared to fulfill them.

Finally, there is a widespread impression that too many of the younger faculty regard their appointments as way stations enroute to positions in four year colleges, following attainment of additonal academi credentials. Their college administrations may encourage such higher degree attainment, by reasoning that unless the faculty is "up scholastically," the school will lose status as an institution of higher education. It could be asked whether such fears don't actually harbor a lack of pride, and sense of the status and importance of what the community colleges are, and can accomplish in their own right. Indeed, in his survey of junior college faculty attitudes, Garrison noted the pessimistic and cynical feelings of many teachers. That study further indicated that in the minds of most university graduate students, as well as many of the practicing faculties in the community colleges, there is a negative or at least ambivalent attitude toward the prospects of building good and satisfying careers in such institutions.

Failure to insure that the community colleges accomplish their objectives, and to resolve problems of professional identity and status, could have far more serious consequences than institutional drift and lowered faculty morale. It is conceivable, unless the goals and methodological differences of community colleges are not only recognized and internalized by their staffs, that these institutions will go the way of the dodo bird, or at minimum, the now somnolent junior high school movement. The implications of these latter problems of the community colleges, are therefore seen as lending additional support for the establishment of graduate centers offering a preparatory and intellectual experience shared by a significant number of their faculties. This should not imply the fostering of a closed preparatory environment, resulting in the emergence of a new "church of the latter day college" or "faculty priesthood" as Antioch President James Dixon forewarns, but rather the creation of linkages in the objectives and pedagogic approaches of community college staff. Above all, it would be their responsibility to train a faculty capable of reinforcing and/or transforming the community colleges into truly distinctive institutions; that can reduce the present student attrition rates through greater efficiency and skill in the teaching-learning process. Ancillary functions of such centers would be to serve as sources of academic stimulation and renewal, capable at the same time of contributing to the prestige and cohesiveness of the community college movement.

III. Are Centers Really Necessary?

A. Alternate Approaches to Improving Community College Performance

It was a fundamental assumption of the original project proposal submitted to the Office of Education, that there is widespread dissatisfaction throughout the nation over the insufficient and inappropriate types of orientation, subject matter knowledges and teaching skills, transmitted at institutions presently preparing faculty for community colleges. It is further presumed that the inadequacy of this preparation correlates with many of the difficulties encountered by these colleges in achieving their goals. A fair question is raised, however, as to whether other means than changing the faculty preparatory process do not exist for effecting positive community college development. In a discussion with the writer, Arthur Cohen posed several such alternative and possibly superior approaches:

> 1) Establish precisely defined performance contracts between colleges, or even private non-collegiate organizations, such as is contemplated by the Office of Education guidelines for a pilot project in the Texarkana area.
>
> 2) Introduce merit pay procedures for faculty which would change the reward systems within the colleges to bring them in line with the achievement objectives desired.
>
> 3) Institute an extensive program of formative research contracts with consortiums of community colleges, working perhaps with certain universities, to identify outstanding problems, make assessments of current endeavors, and recommend changes in their programs.

> 4) Launch a concerted effort to change faculty certification requirements, and embody in state laws and regulations and collegiate procedures, those qualities seen as essential for faculty.
>
> 5) Close the community colleges altogether and reassign their responsibilities to other social agencies, which might include vastly different types of educational institutions, with different kinds of staff altogether, on the basis of a thorough reformulation of desired objectives.

Aside from the draconian and politically untenable aspect of the last suggestion, these points would appear reasonably feasible and generally meritorious, although not without their own inherent difficulties. With regard to the first approach, for instance, care would have to be exercised that the contracting organization did not screen out certain students and thereby distort their success ratios. Very careful standards also would be needed in framing the indices of project achievement and the tests to assess them.

In reality, such safeguards must apply as well in measuring achievements of community colleges generally, and of the proposed faculty preparation centers. On balance, therefore, the first four points must be regarded as lending a certain perspective to this present proposal. They do not invalidate the need for new faculty preparation centers, but do indicate that a many - pronged approach to the improvement of community colleges is possible. Such additional approaches are indeed desirable because even high quality preparatory centers could not alone insure the continuing existence in the community colleges of attitudes conducive to change, new responsibilities, and improved methods. It will likewise be essential in fostering a climate propitious of requisite change, that the learned societies and other groups influential on the course of higher education, re-examine their goals, procedures, standards, etc. Such matters, of course, lie outside the scope of this present study.

B. Are Existing Preparatory Programs Adequate?

The literature on the inadequacy of much college teaching is extensive. To mention only a few observations by qualified authorities, there is former U. S. Education Commissioner Earl J. McGrath's assertion that more than sixty percent of college presidents surveyed had expressed serious dissatisfaction with the preparation and teaching performance of their faculties; the 1967 study of the American Council on Education (ACE), Improving College Education, edited by Calvin Lee, concurred in these findings and thoughtfully analyzed the problem and the many difficulties to be encountered in its solution; and Nevitt Sanford's recent book Where Colleges Fail, called college teaching a "neglected art," diminishing substantially the benefit students gain from higher education because of the pedagogic deficiencies of their instructors. Jencks and Riesman in their study of The Academic Revolution, also question whether graduate schools prepare their students to be teachers, or only researchers, and are worried about two questions: the kind of people recruited for higher education faculties, and the kind of training these people receive in their apprenticeship period as graduate students.

Such concerns have led to proposals for alternate faculty preparatory programs. Several surveys of faculty and administrator opinion are available, as well as reviews of the literature appraising the need for new or revised graduate level degrees to prepare students for college teaching responsibilities. A rich lode is contained in Approaches to Preparing Prospective College Teachers, a December 1968 report of the Coordinating Council for Higher Education (CCHE). The conclusions emerging from the study by this California organization are that there is a distinct need for a degree program, emphasizing teaching skills, which would be attractive to the classroom - oriented instructor, particularly beginning faculty at community colleges; present masters degree level programs are insufficient for this purpose , "due to the variable and chaotic extent of preparation" they require; the existent Ph.D. programs generally take too long to obtain, include anachronistic language requirements, and are too narrow in focus and consequently do not properly train the undergraduate college instructor, especially those teaching the lower level courses;

present Ph.D. programs emphasize research to such an extent that teaching interest is not stimulated, and holders of the degree are not attracted to community colleges.

Garrison's survey of community college teachers' opinions on the matter, likewise indicated that liberal arts and science instructors especially were inclined to be critical of their graduate work. Their preparatory education was characterized as "inadequate" or "inappropriate" for their teaching responsibilities, and as "slanted towards the needs of the prospective Ph.D., both in content and in treatment."

Garrison's interviewees granted that the Ph.D. can be recognized and respected as a research degree, but generally felt that it "represents a depth and manner of training rarely required of junior college faculty." A more appropriate course stress for their own duties, they felt, would be "on concepts -- and even suggested methods of teaching -- appropriate to instructing freshman and sophomores." These preferred faculty preparation courses are "apt to be generalized surveys (of literature, for instance); coverage of basic concepts, with allied laboratory work, in the basic sciences," and so forth. They cited the difficulties of teaching general introductory courses effectively, and of even locating "adequate texts to use." These interviews strongly reinforce the pedagogic view that most traditional graduate programs serve only the demands of a highly specialized aspect of one subject matter. The educational needs of community college students, and the demands society will place upon them, are for the possession of a much broader, inter-disciplinary comprehension of the problems and reality of contemporary life.

The CCHE study cited another survey by John Cashin for that same organization, which not surprisingly found there is a substantial demand among California junior college faculty for a teaching, rather than a research doctorate. Presidents and academic deans likewise surveyed, indicated almost unanimously they would be prepared to hire the holders of such degrees. The present study concurs with the assumption implicit in these responses, that there should exist a pedagogy relevant to education in the community colleges (or at least the whole freshman - sophomore level of undergraduate preparation). Imparting to students the modes of inquiry suitable to their various fields and levels of education is a pedagogical problem, calling for the identification of the best methods of instruction to serve those ends.

In addition to testimony of the above nature on the deficiencies of the substantive content of traditional graduate programs for community college purposes, there is a problem of attitudes. While impossible to prove, this writer is not alone in sensing a pervasive feeling among most academicians inclined to exclusive emphasis on scholarship, that a great many community college students "have little business being in college." Equal disdain has been observed for such typical career programs as "inhalation therapy" or "construction technology". It is not unreasonable to question whether attitudes like these can support a healthy setting for the preparation of the faculty who must teach the matriculants in such programs.

One also must deplore the graduate school attitude which holds all courses or other experience concerned with pedagogy in contempt, and which virtually prides itself on the lack of preparation of its graduates going on to college faculty positions, in such matters as learning theory, curriculum design, testing techniques and classroom procedures. It is, after all, merely to mouth a conventional wisdom to castigate the absurdities of "how to" methods courses of the schools of education. Would not the more appropriate response be efforts to systematically improve teaching preparation sequences, not extirpate them?

To be sure, such pretension is giving way somewhat to more reasoned response. A clear cut recognition of the need was contained in the Muscatine Committee recommendations of 1966 to the Academic Senate of the University of California, Berkeley. "The time has come," their report observed, "to question the whole system which makes the Ph.D. the only acceptable form of certification for college teaching." The Master Plan for Higher Education in California, 1960-75, also recommended reorientation of doctoral programs to insure that those graduates planning to teach possess qualities appropriate to that function. Recognition of the problem assuredly is further reflected in a recent AAJC published

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list of upwards of 75 colleges and unversities which indicate they sponsor one or more graduate programs (not necessarily degree oriented) for the preparation of community college instructors. Unfortunately, the quality and pertinency of these various programs, have not yet been evaluated.

However, these examples of faculty preparation efforts seem merely straws in a wind whose lack of force leaves the national community college leadership still highly concerned. Mary Wortham, in making her case for a doctor of arts degree in the AAUP Bulletin, presents an illustrative compendium of attitudes showing that teaching competence is still "the neglected area in professional academic training programs." She sadly observes that with "a few notable exceptions," a mystique of amateurism in addition to the inadequacy previously cited, "has quietly prevailed."

Beyond the masters level, there is generally no higher degree available fully relevant to community college teaching careers. Beyond that level, teaching competency is not treated as something other than the sum of knowledge in a disciplinary field, and seldom is opportunity given to understand and practice teaching responsibilities in a setting conducive to constructive feedback. If the comprehensive examination is designed to measure scholarly competence, and the dissertation competency in research, does the fact that nothing exists to measure teaching competency imply that for these graduate schools, that factor is, in Wortham's words, "immaterial, or else like the X- chromosome for sex --- not susceptible to modification?"

Despite the contention of those like Bernard Berelson that Ph.D. candidates do spend a considerably greater proportion of their time in a form of teacher preparation (e.g., graduate assistantships), than do prospective secondary school instructors for instance, the fact is that much of this experience is ineffectively conceived, supervised and executed. Low paid graduate assistants are often merely a crutch to jerry-built staffing practices at undergraduate colleges functioning within a university setting. Not sound pedagogical purposes, necessarily, but the graduate schools' requirement for campus residency has fostered the practice. Graduate students themselves may perceive their assistantships as means to ends and, as a consequence of a lack of interest in their assignments, become ineffective. They often slight their responsibilities to students in order to concentrate on doctoral studies.

The AAJC, on the contrary, established precise objectives for a Seminar for Great Teachers held in August 1969 at Westbrook Junior College in Portland, Maine. These objectives were specifically concerned that college teachers be prepared, among other things, to analyze and propose varied solutions for the most pressing problems of instruction, to establish conditions of learning appropriate for a variety of students, and to identify non-traditional teaching ideas and practices, giving special attention to methods promising increased efficiency of instruction for large numbers of students. The National Faculty Assocation for Community and Junior Colleges (NFACJC) issued a call to action in August 1968, stressing the need for "commensurate attention to the strategies of effective transmittal of learning to the range and quantity of college students . . . now . . . confronting us . . . ." The Ford Foundation supports a program for community college career occupational faculty in the St. Louis area, which places "emphasis on quality teaching and its constant improvement, including developing better approaches, materials and systems, and evaluating their effectiveness . . . ."

These posited goals and expectations from a variety of community college agencies, demonstrate their belief that teaching competency, like learning, is not a gift but an acquisition. They are typical of expressions found throughout current community college literature, and which underlie occasional programs similar to the Great Teachers Seminar being conducted elsewhere in the nation. Responses received by the writer from community college administrators, faculty, university level leaders, and directors of existent analogous programs, indicates their belief that the efforts which the graduate schools are making towards familiarizing prospective college teachers with their responsibilities for student learning, are still distinctly insufficient. What is needed rather than haphazard obeisance to those responsibilities, are well conceived programs designed to impart a professional conception of what is involved in student learning, and the skills and tools necessary to carrying it out. It would seem that the original project proposal's statement that a "program centering specifically on the preparation of teachers,"partakes of "an idea whose day has arrived."

A spin-off benefit of a major national investment in the proposed graduate centers, would be a more rational ordering of the responsibilities of present doctoral programs. The existence of these new graduate centers, by their concentration on the preparation of freshman - sophomore year faculty, by their concern for the education of massive undergraduate student bodies, as well as their particular attention to urban and disadvantaged students, can release the existent Ph.D. programs from inappropriate responsibilities. Such a situation would permit them to concentrate on what Riesman has recently referred to as "the more recondite functions of the university." He feels it is an "appalling prospect" that the genuine scholar is called upon to spend more time in the classroom and less on research and scholarship. Such scholars are beginning to leave the universities "for the quiet of institutes and centers with no students, for atmospheres less charged with often facile demands for relevance," he noted to a N. Y. Times interviewer last July 16th. It follows from Riesman's remarks that it might be just as well that the present doctoral programs dropped all pretense of preparing the great bulk of college professors.

The proposed graduate centers could permit the present Ph.D. programs to stick to a more appropriate production of scholars and researchers. Indeed, Riesman's recent remarks may represent a resolution of a problem which puzzeled him in his earlier study with Christopher Jencks. Concerned with how to attract a sufficient number of persons to undergraduate teaching careers and preparatory programs, they determined that only one fourth of the present doctoral market can be regarded as available for such purposes. (Only half of those now taking Ph.D's enter academic jobs, while half again of these do so at universities where research and graduate teaching require as much time as work with undergraduates.) That available one quarter could be supplemented, they thought, by an indeterminate number of would be undergraduate college teachers who presently drop out of or don't enter graduate programs, because these **neither** fit their needs or interests. Nevertheless, they indicated pessimism because the presumptive "lesser status" of a teaching doctorate would attract "less talented students" which would act to further reduce the number of candidates.

Whether Riesman now is more sanguine over the prospects of attracting talented people to doctoral teaching programs, or is less concerned about that matter and more about the quality maintenance of scholarly-research programs, may be beside the point of this discussion. But his earlier pessimism can, in any case, be questioned. On the one hand the potential pool of those not really interested in scholarly research, may be larger than the one-quarter of the present market indicated. Logan Wilson has pointed out that the "publish or perish" dictum is largely a myth outside of perhaps 40 or 50 major universities; less than ten percent of the nationwide faculty account for more than ninety percent of published research. Given the existence of an option for respectable teaching oriented degrees plus exciting institutions in which to practice that profession, and conceivably a portion of the 25 percent evidently not really active as scholar-researchers in their academic jobs, might have chosen it. Jencks and Riesman also fail to consider that the requirements for most freshman - sophomore level faculty, and especially those at the community colleges, may well be satisfied by an improved masters level program, which would extend the potential market supply considerably. In addition, judgement as to what constitutes "talent" must proceed as theirs in this context does not, from a definition of the type of talent required: good research scholars may not good teachers make, and vice versa. Finally, if Clark Kerr is correct that we are approaching an era of oversupply of persons possessing the Ph.D., this will facilitate a shift in our focus on the problem, from one of locating and expanding new "sources of supply," to one of reassigning and improving our present sources.

IV. Pedagogic Concerns of Proposed Centers

That a considered pedagogic theory of graduate education for lower division and/or community college teachers, must be developed before attempting to delineate the educational program of the proposed centers, has been sharply contested by most of the authorities the writer has consulted. Although the original inclination was that such a theoretical superstructure would be needed, it has become apparent that there is little reality to such an undertaking. A formulation separate from the justifications and analyses used in defining the problems and objectives, and the attitudes, strategies and techniques incorporated in the design of the program, would appear to have only marginal validity.

In analyzing the various pedagogic goals which ought to animate the centers' educational program, a pattern of recommendations emerged which seems to afford practical utility and correspond to the writer's understanding of priority considerations. Taken together as part of a unified preparatory experience, these elements of the proposed program constitute a new approach to the training of community college faculty. They were selected in direct response to the institutional and student characteristics, and the community college achievement, identity and morale problems, previously discussed. This chapter of the study will analyze one basic methodological element, "prefiguration", and three fundamental substantive elements of the proposed academic program: "learning for mastery," "re-organization of the curriculum," and "the college as community." Each of these warrents a substantial analysis with attention also to their related sub-elements.

In presenting these materials, there is no intention to prescribe course content. The study limits itself to generic rather than specific formulations in those areas falling within the province of institutional autonomy. It was regarded as sufficient to establish clear minimal standards in the areas of pedagogic concern covered. The centers' future staffs should have the responsibility of adding necessary detail and more closely defining their educational specifications or prospectus. Each locus, moreover, will shape its center somewhat uniquely, because each will draw strength from a distinctive mix of faculty, administrators and facilities.

A. Prefiguration: A Basic Methodological Element

Prefiguration is an essentially simple, though nonetheless important concept. It demands that the structure, program offered, and attitudes and actions of their staffs, should prefigure or anticipate, the professional work situations in which it is hoped the centers' graduates will be engaged. To insure that the students acquire the necessary attitudes, perspective, knowledges and skills, the formal course work and other experience provided should be reinforced by the "institutional press" of the centers, which includes the reward systems they incorporate.

The "institutional press" of the centers should be conceived of as a "textbook" in itself, which attends to the broader values and process through which the program objectives are manifested and brought alive. The variety and even quality of courses alone do not offer a sufficient definition of the educational process.

The way the program is developed, the learning strategies and modes utilized, the participatory process through which decisions are made and the way the center is governed, etc., should be invested with the precepts spelled out for the pedagogic aspects of the program. Organizational structures and patterns inevitably incorporate a point of view as to what issues are important, how knowledge is organized, how learning can be effected in a variety of ways.

As a practical matter, this also means that those resources and facilities deemed necessary for the proper conduct of a community college's instructional activities, must be available to the faculty and students of the centers. Other consequences of this principle could include, for example: a belief in an inter-disciplinary approach to subject matter presentation, effecting the centers' pattern of departments, divisions and the like; a strong concern for faculty and student interelationships, shaping the need for office facilities and the pattern of student class composition; an openness to experimentation with new technologies, bringing in its train requirements for a variety of materials and equipment; a disenchantment with conventional credit hours and classroom sizes, calling for the utilization of alternatives to these in the centers' own courses.

B. Fundamental Substantive Elements

1. Learning for Mastery

The concepts in the introductory portion of this heading draw almost completely upon Benjamin Bloom's article "Learning for Mastery." Because his synthesis of previous studies as well as his own contributions to the development of strategies for student learning mastery are so trenchant and promising, the article will be quoted from at some length.

The work of Bloom and his colleagues at the University of Chicago is developing largely within the context of pre-college education. Nevertheless, their emphasis on assisting the overwhelming majority of students to achieve scholastic success, is seen as precisely applicable to the community college situation. Bloom's thesis is specific in its delineation of goals for teachers and students and an operational strategy to reach them. It incorporates an approach which maximizes feedback and verification of results. His concepts are generally shared by those seeking to develop an empirically based science of pedagogy. The thesis is permeated by a philosophy which would facilitate adaptation to diverse situations and requirements. It poses the correct question, by directing faculty attention to how learning occurs. The thesis is regarded as a viable and flexible framework within which to develop predictable, demonstrable and efficient teaching - learning practices that avoid the fuzziness of typical teacher college preparatory programs. It is strongly recommended as a component element in the proposed new graduate centers' programs. Bloom's thesis makes the following basic assumptions:

> 1. "The problem of developing a strategy for mastery learning is one of determining how individual experiences in learners can be related to the learning and teaching process."
>
> 2. The grade of A as an index of mastery can, given sufficient time and appropriate types of help, be achieved by up to 95 percent of the students in a class. [Roueche and Herrscher note this is "revolutionary ... (and) quite contrary to teacher beliefs and expectations."]

3. To provide successful and satisfying learning experiences to that proportion of students, "major changes must take place in the attitudes of students, teachers and administrators; changes must also take place in teaching strategies and in the role of evaluation."

4. What is meant by mastery of a subject must be clearly set forth. For this he believes "the specification of the objectives and content of instruction is one necessary precondition for informing both teachers and students about the expectations."

5. John Carroll's view is accepted "that aptitude is the amount of time required by the learner to attain mastery of a learning task. Implicit in this formulation is the assumption that, given enough time, all students can conceivably attain ... learning mastery."

6. Only if "the amount of instruction, quality of instruction, and time available for learning ... are made appropriate to the characteristics and needs of each student, can the majority be expected to achieve mastery of the subject."

7. "Motivation for further learning is one of the more important consequences of mastery." When a student masters a subject, and receives the reinforcement of both objective and subjective evidence of that mastery, "there are profound changes in his view of himself and of the outer world."

8. "There are many alternative strategies for mastery learning. Each strategy must find some way of dealing with individual differences in learners ...."

Question can be raised with regard to the second and fifth of these propositions. Bloom's substantiation of his belief that up to 95 percent of students can achieve learning mastery is based in part on an examination of the grade norms for many standardized achievement tests. These norms demonstrate that selected criterion scores achieved by the top students at one grade level are achieved by the majority of students at a later grade level. Further support is available in studies where students were permitted to learn at their own rate, which show that while some students achieve mastery much sooner than do other students, most students eventually reach mastery on each learning task. Whether most students can learn a subject equally well, that is at a high level of complexity, he asserts also can be answered affirmatively on the basis of his study of aptitude distributions in relation to student performances.

From one to five percent of students at the top of a variety of aptitude distributions examined, do seem to have a special talent for the subject, learning and using it with greater fluency and in ways not available to others. At the other extreme of aptitude distribution, he concedes "there are individuals with special disabilities for particular learning." Such persons, his studies lead him to believe," may constitute less than 5 percent of the distribution, but this (too) will vary with the subject and the aptitudes." Thus for the approximately ninety percent of individuals in between, and the top five percent, he believes "that aptitudes are predictive of rate of learning rather than the level, or complexity, of learning that is possible."

The writer acknowledges that these proofs will be regarded by some as yet insufficient; that the cited achievement norms and level of complexity of learning, may be too reflective of pre-college experience to apply to lower year undergraduate students; that the assumption of the percentage of students capable of achieving learning mastery may even represent a false extrapolation of experience from industrial training settings. In the absence, however, of proof that these contentions are themselves substantial, it is this writer's belief that as a framework for moving ahead with the development of a more effective learning strategy, the thesis provides a sound working hypothesis even if the precise percentage remains to be determined.

Another problem lies in the definition of aptitude contained in point five. On the one hand, Bloom acknowledges that there are groups of students at either extreme whose learning may be greatly aided or seriously impaired by native endowments dissimilar from the norm. On the other, he points out that motivation is both a cause and an effect of mastery. However, it would seem difficult to contend that motivation develops in a closed circuit, has no separate antecedents, and is not subject to other stimuli than those involved in a particular learning situation. Aptitude, therefore, despite Carroll and Bloom's contention, cannot be *solely* a function of time spent in learning.

The writer nevertheless advances the suggestion that the problem may be merely one of semantics. One may concur that other variables than time do affect learning mastery for students. But the point is that this particular definition of aptitude is not necessary to Bloom's thesis on learning mastery strategy. Its redefinition need not negate his consequent assumption that given sufficient time most students may be able to achieve mastery. For if native endowment and motivation can be shown to exclude for these purposes, *only* a lower extreme such as Bloom contends to be the case, then the strategies and expectations built on this theoretical base are the same for all practical purposes.

It is also critical, in the writer's opinion, that Bloom acknowledges that for some students "the effort and help required may make it prohibitive" to strive for their learning mastery in all fields. In this connection, the writer suggests that the proposed centers and the community colleges with which they articulate, should develop standards for minimum permissable achievement scores, and maximum time to be afforded students, related to the various college programs. (Articulation between the centers and a group of cooperating colleges, is discussed later in the study.) In developing such standards, however, it must be kept in mind that other variables, whose effects can be influenced, relating to motivation and the amount and quality of instruction, are also important. Furthermore, the standards themselves should change as more effective learning conditions can be researched and introduced.

Bloom makes additional points which should undergird the proposed centers' mastery learning strategy and the learning precepts imparted to their students. Regarding the quality of instruction, he criticizes the assumption "that there is a standard classroom situation for all students," and contends it is an "educational trap" to specify instructional quality "all in terms of group results." He cites evidence that some students can learn quite well independently while others need highly structured teaching-learning situations; some need more concrete illustrations and explanations, some more examples to capture an idea; some more approval and reinforcement, some more repetition.*

*This aspect of Bloom's strategy enjoys particularly wide support. W. J. McKeachie, for example, suggests that teaching conditions must facilitate a two-way interaction, with teachers trained to identify those students not normally stimulated by their teaching style, and by responding to this feedback, modifying instructional tactics as they observe their effects. Other commentators have pointed out that not only can the quality of instruction be varied to suit particular students, but different students can be matched with different kinds of teachers.

In commenting on any students' ability to understand instruction, Bloom underlines the importance of the learner's understanding of the task to be learned and the procedures to be followed. He notes that in our highly verbal schools student ability to understand instruction "is primarily determined by verbal ability and reading comprehension." While these latter abilities can be altered through appropriate training, the possibilities for this diminish with increasing age. Consequently, by the time a student reaches a community college, his call for improving their ability to understand instruction by modifying the form of instruction, and through use of various types of technology to extend the capabilities of individual teachers to reach them, is particularly pertinent.

Regarding students' perseverance, he finds it "related to attitudes toward and interest in learning." If there is positive reinforcement via frequent rewards and evidence of growing mastery of subject matter, students will persist on a particular learning task; if not they "must (in self-defense) reduce the amount of time devoted to learning." Mere demands for perseverance are less meaningful than the manipulation of instructional approaches and learning materials. "Improvement in the quality of instruction ... may reduce the amount of perseverance necessary for a given learning task."

In discussing the time allowed for learning, he does not doubt that students with high levels of aptitude are more likely to be efficient and require less time for learning. He is convinced, however, "that it is not the sheer amount of time spent in learning ... that account for the level of learning." The previous factors cited (and he acknowledges that aptitude is among these) will affect the time required, with "the task of a strategy for mastery learning (being) to find ways of altering the time individuals need ... as well as to find ways of providing whatever time is needed by each student."

Bloom states that few successes and many failures are to be expected in developing a learning mastery strategy. "The point to be made is not that a single strategy of mastery learning can be used mechanically to achieve a particular set of results. Rather, the problem is one of determining what procedures will prove effective ... that each time a strategy is used, it will be studied to find where it is succeeding and where it is not....

In advocating the adoption by the proposed centers of this approach to developing learning mastery strategies as an effective means of organizing efforts to cause student gain, the writer is aware that other definitions of learning and statements of teaching objectives exist. For instance, the Committee on Undergraduate Teaching, chaired by C. Easton Rothwell and supported by the Hazen Foundation, also asserts that learning is an interactive process between student and teacher. Not only is knowledge acquired in the process, the Committee concludes, but also such intellectual skills as "the generation of hypotheses and their exploration, the extension of perspectives, the deepening of perceptions, the heightening of sensitivities, the release of creative impulses, and the rendering of judgments. It means the development of complicated intellectual and creative capacities, hopefully motivated by some zest and enthusiasm. It means the emergence in each student of an individual style of learning which the discerning teacher can help to cultivate."

With no intention at all of deprecating such a formulation of educational goals, it is nevertheless pertinent to ask how it is proposed to make them operational. Neither the Committee's report, nor the many others like it, make that clear. The learning mastery concept advocated, on the contrary,provides a structured procedure for building on knowledge as to which instructional strategies work in transmitting which kinds of learning to which kinds of students. If desired, it can be used in a systematic way to try to also achieve the above quoted worthwhile goals the Committee and similar groups have identified.

The materials covered and approaches advocated in the following sub-sections under this heading are viewed as essential to the achievement of the mastery learning strategies. The validity of Bloom's thesis, in turn, actually acquires further substantiation from its ability to provide rational criteria for judging the importance and effectiveness of these supportive elements.

a. Setting Learning Objectives for Behavioral Change

The question of what "good teaching" is almost always begins with the premise that the teaching act is crucial and that the issue is how to develop the "best" or most effective instructor by examining his methods. How the faculty performs in the presence of learners is often considered to be of greater importance than how learners perform as a result of teaching.

The proposed strategy for learning mastery questions the usefulness of this approach for solving today's educational problems. The more important question has become, "What can the learner do as a result of instruction that he couldn't do before?" This proposed alternative approach to the teaching-learning process assumes certain fundamental things:

1. Teachers are change agents, in addition to their responsibility for reinforcing previously learned material. That is, unless teachers produce specified behavioral changes in their learners, they have not "taught" and no new learning has taken place. Behavior itself is defined broadly, in Ralph Tyler's terms, to include "thinking, feeling and acting," while educational objectives refer to "changes in pupil behavior."

2. Teachers must specify clearly for themselves, their students, and their supervisors the learning objectives and behavioral changes they seek, and must do this before they begin to plan an instructional sequence. They must then order sequentially and implement these objectives, on the basis of selectively designed methods and

materials. Afterwards they must check the extent to which these desired changes have actually occurred in their students, measuring them in terms of mutually understoood minimal performance units. The evaluation procedures help further define what the student is expected to be able to do once the course is completed, and these in turn enable both student and teacher to know when instruction has been effective.

3. Teachers also must be prepared to modify their objectives and teaching techniques in order to improve future instruction, on the basis of feedback from this total process.

What has been just described is an aspect of a systems approach to education. Once objectives are stipulated, the teacher backs up to design activities calculated to accomplish them. Student progress is monitored throughout the teaching-learning process. A feed-back mechanism and loop is built in that permits verification whether the prescribed activities indeed accomplish the objectives. Students can logically be permitted to skip learning they already possess by using diagnostic procedures to ascertain if they have reached predetermined standards of achievement. Students who initially surpass these levels on the basis of previous experience and performance on achievement tests or "challenge" examinations, should be given credit and/or placed in a more advanced course. The criteria for evaluating certain learning objectives will not always or necessarily be quantifiable, moreover, even though they should satisfy reasonably objective standards of another sort.

Utilizing such behavioral change approach to building academic programs will not automatically assure the achievement of all desirable learning objectives. Insufficient evidence exists to support such a claim. However, neither is it excluded that with greater experience in its use this will be possible in time. Even the minimal advantages it offers, and the centrality of some such instructional technique to the learning mastery strategy proposed, support its inclusion in the programs of the new graduate centers.

The technique proposed need not (and of course should not) limit itself to the achievement of minimal terminal performances by students, but at least does set itself the goal of achieving those. Moreover, it is as well prepared to go beyond concern only for factual subject matter content, to seek to stimulate creativity, "discovery learning," problem-solving, student self-actualization and other cognitive, affective and value objectives, as any other instructional technique. It can posit such objectives with greater honesty. This technique uniquely demands of its users that they explicitly define and state all objectives, and devise methods and test to ascertain that the behavioral changes consequent upon achievement of these objectives, have taken place. Used in conjunction with individualized instructional modes, and it can provide students with an efficient base upon which they can be motivated to build their own higher, individually defined goals.

It cannot be denied that there are dangers and problems involved in the use of this, as any, technique. It should not be permitted to become a fetish, or lead to situations as described to this writer by one correspondent, "where a teacher cannot enter a classroom without having written down his behavioral objectives." But until a superior alternative is available, this approach should serve. Not the least of its advantages is that despite its high concern for the product of teaching-learning activity, it can be a self-correcting mechanism for improving the process as well. Following is a summary of the advantages it offers for improving faculty performances.

1. The teacher becomes an inquirer into the teaching-learning act. He becomes an investigator or a sort of "hypothesizer of change." He can perform in the classroom in ways he hypothesizes will produce the changes he's after. He can stop and check the learner to see if the changes took place as planned. If not, he can modify his teaching design until he gets the results he's after. This entire investigative process can only take place because he has written his objectives and therefore knows what he is after.

2. The procedure encourages exploratory use of a greater range of alternative objectives, methods, materials and strategies, as well as criterion measures or tests. Instead of becoming wedded to one favorite test, method, or medium, for example, because it is considered to be "best" or most commonly acceptable, the approach prods the teacher to select from a broader variety available to him. Teachers can discover whether favored activities advance learning, or are merely time fillers; whether they get the material across, or are merely perfunctory exercises. This is not to assert that

faculty, as a necessary consequence of adopting this methodological technique, will thereby automatically become more creative. It is not improbable, however, that as a consequence of asking faculty to plan clearly and sequentially about what and how they teach in relation to outcomes, one may well generate certain "Hawthorne Experiment" type effects. For the approach itself generates excitement about the subject and the process through which it is transmitted. Teaching effectiveness is enhanced when the teacher is stimulated and can transmit a sense of that excitement. That certain outstanding "lead edge" scholars are so often cited by students as their "best" teachers, would seem to be due to their own commitment and involvement with the subject, striking off sparks which ignite student interest. But most teachers, by reason of interest, ability or opportunity, are not that type of person. What kind of activity do they then engage in that can bring alive for them, class after class, year after year, a similar involvement to be felt by their students?

3. There is an increased possibility for self-evaluation and self-direction on the part of the teacher. Within the overall curriculum framework set by the college, it is the teacher who selects his own objectives at the instructional level and specifies the changes he is after in his learners. Furthermore, he can determine the extent to which he has accomplished them on his own. In all fairness, an external person, such as a dean, chairman, supervisor

or parent can only evaluate the effectiveness of teaching after full knowledge of the intended changes in the learners, and in light of any evidence collected to support such changes. On the other hand, the teacher, without the aid of outside judges or evaluators, can begin to systematically improve his own teaching by collecting such evidence of change and examining it himself. In this way, he can become more self-reliant and autonomous.

4. *When instruction is unsuccessful,the instructional program itself, i.e., the process, methods, materials, or techniques employed, can be recognized as sharing some of the responsibility for failure*. Faculty and administrators will, of course, be responsible for improving the instructional program from one semester to another, and serious blame for continued failure can be laid on those who are unable, or unwilling, to make improvements. Likewise, students are not necessarily exonerated from the stigma of failure, since they are actors in the learning process and not neutral objects. When a student does not change, however, no longer may he be comfortably classified as slow or lazy. The student may not have been properly motivated, the learning objectives may have been unrealistic, the methods may have been inadequate. The approach enforces attention on all the contributing elements in the teaching-learning process, and discourages the laying of false burdens of guilt on students or anyone else for that matter.

5. *The approach is more humane in that it forces educators to focus continuously upon students, rather than exclusively upon the teacher's technique*. Student response is still the most sig-

nificant aspect of the educational endeavor. What a student does to show what he is thinking and feeling becomes the target of change. His performance or behavior prior to, during, and after instruction becomes the focus of everyone's attention. Observations of specified aspects of his behavior produce the evidence gathered upon which to base future instructional decisions.

This means that behavior expressing student apathy, boredom, resistance and unrest could be defined as significantly important, though unintended, instructional outcomes. A teacher could attend to these or any other outcomes of his instruction with an eye to their modification.

6. The teacher can also improve his selection of objectives and thereby improve the quality of skills being mastered by the students. All too frequently, conventional test scores are not sufficient unto themselves as indices of learning. With the use of behaviorally oriented tests, an examination of the teacher's objectives may reveal that scores were high, but on the wrong types of items. That is, the student may have learned to memorize well, but the more important items which involved higher-level or complex cognitive tasks (re: Bloom's Taxonomy of Educational Objectives) were missed. In other words, behaviorally oriented procedures permit specifications of multiple objectives, and programming for each. The teacher may ascertain whether other objectives such as the complexity and transfer value of a task, and a positive attitude towards the subject has been gained, as well as the quantity or speed of student performance, or the accuracy with which a student solves, for instance, a specific kind of math problem.

7. Finally, by establishing learning objectives and thresholds of desired student behavior, the teacher is prevented from being so permissive that the classroom degenerates into what some commentators have referred to as a form of sublimated gratification for faculty.

Rita and Stuart Johnson of the Junior and Community College Division of the Regional Education Laboratory of the Carolinas and Virginia, have developed an explicit and realistic five-part "Instructional Reorganization Series," which should be considered for incorporation in the programs of the proposal centers. This "Series" is itself a modestly conceived, behaviorally oriented and systematic process to assist teachers to understand the above outlined principles, and to help them in preparing learning objectives to produce behavioral change. Some faculty can be expected to react negatively to such a learning program, feeling they do not need this assistance and dismissing it as superfluous, perhaps without even examining it. However, the fact is that teachers often behave unsystematically. The simple guidelines described in the Johnsons' materials present a framework on which basis faculty can organize themselves and whatever other resources they bring into the classroom.

Institutional support will of necessity be required for such instruments to be properly considered and utilized. As indicated in the earlier discussion of the prefiguration concept, for greatest success the proposed faculty preparation centers should employ staffs which are willing and able to spell out their own learning objectives. These staffs must gather evidence of the trainees' performance and revise courses or "modules of learning" until they do a better job of accomplishing the intended objectives. They should offer a broad range of alternative techniques to their students, and be willing to modify these approaches until all learners achieve mastery. Both the centers' staff and students would learn by doing and be evaluated on the basis of the behavior changes that resulted.

b. The Abnormal Curve and Testing

The title of this sub-section is meant to be more than a playful phrase; it is also a description of the more appropriate goal to set for student grades, and the related use of tests, under a learning mastery strategy. Bloom notes that "we have for so long used the normal curve in grading students that we have come to believe in it." The consequences of this acceptance he sums up succinctly:

> Each teacher begins a new term (or course) with the expectation that about a third of his students will adequately learn what he has to teach. He expects about a third of his students to fail or to just "get by." Finally, he expects another third to learn a good deal of what he has to teach, but not enough to be regarded as "good students." This set of expectations, supported by school policies and practices in grading, becomes transmitted to the students through the grading procedures and through the methods and materials of instruction. The system creates a self-fulfilling prophecy such that the final sorting of students becomes approximately equivalent to the original expectations.

> This set of expectations, which fixes the academic goals of teachers and student, is the most wasteful and destructive aspect of the present educational system. It reduces the aspirations of both teachers and students; it reduces the motivation for learning in students; and it systematically destroys the ego and self-concept of a sizable group of students.

The previously described requirement for defining outcomes and constructing evaluation instruments, actually makes an implicit distinction between the teaching-learning process and the evaluation process. The former is intended to prepare the student, the latter to appraise the extent to which he can achieve in desired ways, but they are separate processes. Lumping them together results in achievement measures designed only as sorting instruments, which do no more than detect differences among students in their mastery of subject matter, however trivial. Achievements are then usually signified by distributing grades "normally", classifying students into five levels of performance categories relative to one another. A small percentage of the students receives an "A", balanced by an equal proportion who are failed, with the latter frequently determined by group ranking rather than failure to grasp the course's essential ideas. Administrators often reinforce the practice, admonishing teachers who are "too easy" or "too hard" in their grading. The grading practice convinces students that "C" or "D" work is their speed, as does the very system of quiz and progress testing, with teachers also confirmed by such circular "evidence" that only a minority of their students can fully master what they are there to present.

The normal curve Bloom skewers with the remark that "it is the distribution most appropriate to chance and random activity." If education is purposeful activity and if it is effective, grade distributions should reflect that and forget about establishing refined pecking orders. In fact, Bloom states, "we may even insist that our educational efforts have been unsuccessful to the extent to which our distribution of achievement approximate the normal distribution."

A first essential to breaking with established grading, lies in treating testing associated with the teaching-learning process separately from achievement testing, and assigning the former the functions of diagnosis and progress measurement. Bloom borrows the term "formative evaluation" from Michael Scriven to describe this sort of testing, which seeks to identify the areas of student difficulty, and the elements in a learning hierarchy that a student still needs to learn. Formative testing becomes an intrinsic part of the teaching-learning process, providing diagnostic feedback to the teacher, and pacing the students' work and helping motivate him to make effort at the appropriate time. Bloom finds that students respond best to the diagnostic results when they are accompanied by specific prescriptions for instructional material or processes to help them correct difficulties. He believes formative tests should not be used as part of the evaluative grading process, but merely marked to show whether mastery is being accomplished.

At some point in time, evaluation tests based on learning objectives to produce behavioral change (or criterion reference tests as they have been termed by Glaser), should be employed to measure the results of teaching and learning. But these should not be essentially competitive, judging the student in terms of his relative group position, and thus encouraging learner preoccupation with evidence of group standing. While competition may be a spur to some students, Bloom believes "that much of learning and development may be destroyed by primary emphasis on competition." Instead, he advocates setting standards for mastery and *excellence*, predetermined with respect to desired performance levels, rather than relative standards. Students are judged as to how well they meet the performance levels, regardless of how well others in the class do. Bloom does not recommend national achievement standards, *but rather realistic performance standards developed for each school or group*. The kinds of instructional procedures previously described should then be used to bring as many students as possible up to this level.

The writer believes that the concept of criterion-reference tests to measure mastery achievement, underlines the loose construction of the pass-fail systems which are being adopted today by some institutions. The latter usually neglect to define what constitutes sufficient learning to earn a "pass", or to establish clear cut higher goals of achievement and excellence, and are rarely geared in with instructional techniques designed to systematically produce behavioral change. Without these elements, a pass-fail system may serve as little more than a green light for mediocrity, particularly in view of earlier descriptions of community college students with respect to such characteristics as autonomy and intellectual interest.

Consistent with the viewpoint advocated, however, would be an approach that would not record any grade until a student completes work required and demonstrates his achievement on an evaluation test. Likewise, several institutions are contemplating removal of the rule that an "incomplete" must become an "F" after a given period of time. The assumption is that a student should be allowed to work on completion of course objectives at his own rate, and need not be punished for entering into a program which for many reasons might be inappropriate, difficult or tedious. Moreover, when students know ahead of time the specific skills, attitudes or concepts that must be mastered by the end of the course, they may elect to achieve all objectives, and thus earn an "A", while those who want a "B" need accomplish only a specified number of those objectives. Again, no grades are recorded until after the objectives are mastered, and students still working on completing the course need not be penalized for moving at a slower rate.

In consideration of the need for some limits on institutional cost factors, provision must be made, as indicated earlier, for establishing minimal standards of aptitude and maximum standards of time to be permitted students. The question is not, however, whether the student should be permitted additional time to complete course work satisfactorily, with its implication of wasted resources if the practice becomes widespread. Such a contention misses the real point that "drop outs" or "flunk outs" represent not only wasted institutional resources, but perhaps tragic losses to themselves and society. Waste, therefore, is already going on, and a pedagogy which seeks to systematically eliminate it is less reproachable on this score than most presently prevailing. On the other hand, infinite human and fiscal resources are not available - a faculty tutor for every student, to carry the premise to an extreme, is obviously not realistic. An extreme approach to the "proceed at their own pace" concept for all students, also requires better administrative procedures and knowledge on the part of institutions adopting it, than those which have been available to colleges which have attempted to practice it thus far. (Oakland Community College of Michigan is an illustrative case.) This does not exclude its full implementation in the future, however, given sufficient advanced planning, perhaps the use of computerized individualized tests, some type of flexible funding and tuition formula, and the additional instruction and improvements in the quality of instruction discussed previously.

In conclusion, the point of these proposals regarding grades and tests and their incorporation in the program of the proposed centers, perhaps was summed up in an academic vice-president's letter to the writer: "If we're going to go on grading, let's discover what it is and for what we are grading." The suggested approach rejects the use of tests merely as successive hurdles to be overcome in a certification process. The grades earned by students should not derive their meaning sheerly from competitive standards or requirements for a mechanical accumulation of credits.

Particularly with respect to prospective faculty, the centers should avoid that graduate school tradition where the student is belabored, as Ann Heiss notes, with endless tests "whose primary purpose is to settle the question of competence which ought to have been decided earlier, and to compel him to arrange his courses of study for the primary purpose of passing examinations. The thrust of such a system is to discourage intellectual curiosity, self-motivation and playful creativity." The centers' admissions criteria should be so drawn that doubt is reduced to the extent possible as to their students' motivation and potential competency, with subsequent examination hurdles decreased accordingly.

This is not to say that no certification or screening function is performed by testing and grading (e.g., to recognize those whose academic achievements are outstanding, or to establish a measure upon which judgments can be made with respect to applications for admission to other levels of education). These latter functions, however, would not be served by the formative tests, but only by the evaluative tests. For both the centers' and community college students, the purpose of formative testing is as a tool towards achievement of learning mastery and excellence. Given the successful use of the various elements in the learning strategy proposed, evaluative testing will confirm that grade distribution can be plotted along an abnormal curve. The comments as a whole on grading and testing are intended to encourage community colleges to develop their own appropriate academic and intellectual standards, lest they be institutionalized into havens for "poor learners."

c. Breaking the Lock Step

The reasons for breaking the lock step or building block notions about class units, scheduling and attendance, and student-teacher ratios, should not rest on visceral reaction against bureaucratic organizational forms and procedures. Max Weber's observations on the necessity for systematic arrangements to implement complex technological and organizational requirements are too profound to be upended by jejune invocations against "the ever growing evils of bureaucratization." The important justifications should instead be logically related to a rationalized strategy for mastery learning and the general goals of community college education.

Formative testing provides one key to accomplishing this goal. It lends itself to modular intra-course scheduling whereby subjects are broken into smaller units of learning, corresponding to well-defined content portions or particular time sequences. There is, obviously, nothing new in this since such breakdowns are required by any sequential approach in education. In all such approaches the units may comprise only a week or two of learning activity. They can distinguish specific factual knowledge from more complex and abstract concepts and principles, and again from even more complex processes of applying principles or analyzing theoretical statements. The formative testing concept goes further, however, in that it indicates completion of a learning unit, paces the learning for the individual student, and establishes his schedule. The concept recognizes that attempts to attain learning mastery within a normal semester or quarter by a student with a history of cumulative learning difficulties, may be frustrated. It likewise acknowledges that providing a rigid three class hours per week format must be abandoned for such students.

The modifications in semester length being tried by some colleges to meet individual student needs and different subject matter requirements, indicate that this type of organizational change also can be accomplished. There is no harm if a student takes more than a semester to complete a course, and no penalty (other than paying tuition again) need attach to a student if this does happen. Conversely, where students do not need as much time to complete a course's mastery learning requirements, they should be encouraged to go farther and faster. Under some circumstances, as previously noted, challenge examinations could substitute for the taking of courses. In addition, the learning required in the panoply of courses offered by a college, hardly lend themselves to equal time intervals of a year, semester or quarter, and effort to make justifiable changes should be welcomed. Finally, rigid student-faculty ratios do not reflect the variable content of different academic disciplines, and this should be recognized by faculty groups as well as colleges and funding agencies.

On the other hand, it must be acknowledged that some regularity in scheduling is essential to college operations, financial reimbursements, faculty compensation schedules, etc. Nor should learning mastery be geared only to minimal achievement levels. If "playful creativity" is a quality to be encouraged among students, as well as that host of higher cognitive and other objectives deemed possible under the strategy and techniques heretofore discussed, then faculty should have their hands full during normal course terms with learners capable of higher achievement. The other side of the coin of saying that colleges should not degenerate into mere certifying institutions is the realization that increased student-faculty contact and intellectual interaction is a valuable activity.

Community colleges have responsibilities that transcend industrial training programs, for example, and the requirements and practices of that activity should not pervade their own. An aim of a systematic strategy for learning mastery, should be to efficiently enable students to quickly dominate the essentials, and thus free time for further exploration in subject matter areas. The writer does not advocate or expect profound transformations in current scheduling practices, or wholesale skipping of courses by bright students who presumably know all they have to offer. Bloom found, for example, that his efforts met with greater success when his strategic approach accepted present scheduling practice. To call for a break in the lock step, is to call for the introduction of a flexibility in these matters that will permit the proposed approaches to learning strategy and technique room to operate, not to advocate free-form organizational principles.

There is implication in these last remarks with respect to recent criticisms of required class attendance. It is one thing to admonish against a spastic insistence that students attend classes; autonomy, after all, does not develop in the absence of freedom. But if classes are not worth attending (and how does the student decide this in advance of attendance?), then they should be improved, or the material they cover presented more effectively via other media and the classes eliminated. Without doubt the application of the self-correcting instructional techniques described earlier would result in such changes. However, an attitude which holds that classes can be skipped on mere whim after the process advocated is introduced, is illogical.

d. Challenge of Technological Innovation

The focus of the proposed academic program, which gives first importance to faculty responsibilities for student learning, suggests immediately that innovations in instructional technology are to be regarded only as tools in the achievement of that goal. (As with Roueche and Herrscher the term instructional technology is used both generically, and with reference more to processes than the restricted connotation of hardware.) Too much current characterization of approaches and programs as innovative is mere indulgence in the penchant to be fashionably novel. Garrison has rightly noted that "there are durable and vexing problems in instruction that do not yield to novel solutions." In addition, the easy replicability of instructional media has fostered extensive research with, and facile applications of, certain approaches and equipment. While this supports the treatment of teaching as a valid field of study, these explorations also often suffer by their abstraction from the human world of students and faculty.

Some abstraction, of course,isessential to any research inquiry aiming at the development of theory as well as practical solutions. Complaints that people and their needs seem to get erased in much of this exploration, are not without foundation however. The results when this occurs are ultimately counterproductive for the teaching-learning process. For this reason, and in contrast to the panaceaic importance which some proponents attach to certain modern media, methods and machines, this study views their use pragmatically. They should be judged strictly in terms of their contribution to more effective, efficient, individualized, and not depersonalized, student learning. A certain measure of technological innovation, is nevertheless an indispensable concommitant to the success of the learning strategies proposed. The challenge lies in keeping their contributions in perspective, overcoming purely Luddite-type resistances to their use, and assisting interested institutions and faculties to stay abreast of developments.

Regarding the two last problems, the Hale Report on University Teaching Methods noted than an "overindulgence in lectures should be classed as a drug addiction on the part of both giver and receiver," while Allan Cartter in his contribution to the ACE study on Improving College Teaching stated that: "using talented manpower as 'talking books' is a shameful waste in most of our colleges and universities today, and tends to keep the student a permanent adolescent. The student's umbilical cord must be severed at graduation in any event, and we should take the responsibility of playing midwife at an earlier age." Garrison notes the "sharp desire" expressed by community college faculty to take a new, and perhaps unorthodox, look at materials and teaching methods. He quotes the representative view of one whose remarks point to an important function of the proposed centers: "A lot of us would like to try some innovations. But we are not sure how to go about it. We usually don't have enough time ... and frankly, we don't know where to turn for help."

Of greatest import, therefore, will be the proposed centers' assistance to future and present faculty in enabling them to cope with and make full use of recent and yet forthcoming technological innovations. Considerating the rapidity with which changes are being suggested in educational technology and methods, moreover, an important asset for any teacher will be the possession of some analogue to the scientific method available to investigators and applied workers in the natural sciences. The strategy and techniques thus far outlined may constitute such a self-correcting evaluative framework of pedagogic values, attitudes and analytic techniques. In any case, some such evaluative approach will be required to judge new developments as they arise during the 35 or so years of a beginning teacher's professional career. The centers should be predicated, moreover, on the thesis that their graduates will work in community colleges which either already possess or will soon incorporate, modern teaching aids, new or improved curriculum materials, and fresh approaches to classroom organization. Lamar Johnson's recent quick tour of the islands of innovation extant in the community college movement, provides some measure of both the requirement and the promise.

Perhaps the strongest argument for the use of technological innovation is derived from its facilitation of individualized instruction that is otherwise impractical in a mass education setting. Students with access to technological devices for instructional drill purposes, can diagnose and overcome their own deficiencies. If their use is properly structured, a dehumanization of the teaching-learning process need not result, since by relieving faculty of direct responsiblity for repetitive drills and other mechanistic tasks, they release time and energy for that personal instruction and contact for which no mechanical aid can substitute. Today whole curricula are being designed wherein faculty contact and technological devices are carefully combined to take maximum account of individual student needs, interests, learning speeds and styles. Moreover, libraries are exploding in size and content under the impact of technological innovation. Once the teacher merely orchestrated books, manuals, films and tapes. Today, the learning resource center, with its data retrieval banks, multimedia aids and multi-purpose rooms and space allocations is available to challenge and offer him significant assistance.

Mounting evidence that academically marginal students, in particular, learn best when a variety of sensory stimuli are utilized, should encourage the imaginative use of such handy devices as microform techniques (microfilm, fiche and ultramicrofiche), recorders and cassettes, magnetized tape, slides and transparencies, especially as this equipment becomes increasingly compact, portable, adaptible and less expensive to purchase and maintain. Most encouraging with respect to these devices, is that it is possible today to eliminate the one-way communication characteristics of older audio-visual methods, and build feed-back mechanisms into technological aids in very sophisticated ways.

But more important than the devices are the new or refurbished instructional methodologies. Imaginative use of a "mix" of seminars, workshops, academic gaming, large and small group instruction (including "eight pack" student team approaches which seek to maximize intra-group cooperation and mutual counseling), can contribute to the search for learning modes adapted to the differences in students, and those needs not solely cognitive in nature. (The latter needs will be discussed at greater length in the section on "College as Community.") Independent study of programmed materials, including electronically assisted tutorial programs of individually prescribed instruction, seems particularly relevant to the problems engendered by the massive and diversified enrollments in the community colleges.

Moreover, both textbook and multi-media approaches seem feasible for programmed instruction. An example of the latter is Anna Lottman's well-controlled experiment in teaching Spanish at Meramec Valley Community College, while the Thames and Gripp English composition text, also listed in the bibliography, is a carefully drawn programmed approach in use at Golden West College. Less complex audio and video programmed instruction appears to offer more opportunity and to be more practical at this time than computer assisted programming, because of the relatively high costs and low state of the art of the latter. However, the centers' students should be familiarized with the principles and operating techniques of all such approaches.

The writer also believes that faculty should be at least acquainted with the concepts of systems approaches to instruction and educational administration. The learning for mastery strategy is itself an attempt to approximate some of those concepts, and such approaches can be expected to characterize academic activity increasingly in the future.

In summation, the use of any and all technological innovations should be justified by their demonstrable potential for reaching learning objectives and causing related behavioral change. While traditional schoolroom patterns, particularly those based exclusively on high verbal and reading abilities, must be examined and questioned by the centers' students regarding their continuing applicability, conclusions should not be foregone that all are undedesirable or even of lesser worth than more recent experimentation. What is important is that these various approaches, old and new, be examined and subjected to critical assessments of their strengths, disadvantages, costs, efficiency and appropriateness for current situations and demands. Faculty must be given familiarity with the range, characteristics, and qualities of technological innovations, so they can make informed choices as to whether and how to incorporate them in their teaching-learning programs.

e. Accountability and Faculty Evaluation

The learning for mastery strategy, and the concepts discussed in setting learning objectives and striving for an abnormal curve in grading, all place most of the responsibility for student gain on the educational institutions and their faculties. Concern for institutional accountability and faculty evaluation is a logical consequence of adoption of these strategies and techniques. The rising cost of education, in addition, has led to a search for more efficient and productive ways of running our schools and colleges, and for measures of the effectiveness of individual teachers. Indeed, institutions and teachers undergo constant conscious or unconscious evaluation by students, peers, supervisors, administrators, trustees, government officials and the public in general. These evaluations influence the approval of facilities, budgets and program priorities, and faculty reappointment and promotion.

Such assessments as occur today, however, are largely informal, unsystematic and self-serving, despite their significant impact upon institutional development and individual professional careers. Hence, one could question the accuracy and equity of these procedures, and the effect that they have on long-term faculty performance and institutional achievement of objectives.

Implicit in the first portion of this study is the belief that ultimately community colleges and the proposed centers must be held accountable for their contribution to community development, their "institutional ability to effect community transformation" (Cohen and Brawer, Measuring Faculty Performance). Since, as Cohen and Brawer point out, "it would be an understatement to say it is difficult to create reliable measures of community change, and to relate change to the efforts of a school," the matter of institutional accountability for community change will not be treated by this study. Suffice to say that the community which supports an educational institution has a right to be satisfied that its products are good and appropriate.

Faculty evaluation, however, cannot be passed over in a proposal which addresses the improvement of their preparation, whatever the difficulties. John Gustad, in his contribution to the ACE study on improving college teaching, noted little if any progress in the use of evaluative techniques as a matter of regular college practice. Not more than a third of reporting colleges and universities even use rating forms, and no more than five percent were engaged in research to improve evaluative techniques of any type. Follow ups to Gustad's survey found little that was different.

Speaking of inadequate academic adaptation to recent social change, Theodore Newcomb reverberates a damning indictment, quite commonly heard today:

> We have been so sure of our efficacy, and perhaps of the concurrent judgment of outsiders, that we have rarely assessed ourselves seriously and systematically. Surely universities represent the largest enterprise in this country that does so little by way of assessing the procedures by which its product is created. Our offices

> of institutional research attempt little more than educational accounting. We do, of course, take note of our graduates' success in finding important positions in society, thus obtaining a rough index of their achievement--and, by inference, of our own--some years previously. Each department is jealous of the number of its graduates accepted by the "good" graduate schools. The sobering fact is, however, that these indices tell us far more about the kinds of students who enter a college than about what the college has done to them. We know extremely little about the latter, as independent of the former--nor have we tried very hard to find out.

With some slight change in examples cited, that statement could apply as well to the community colleges. It has been observed, indeed, that reluctance to define and assess teaching competency stems only partially from the obscurity of the subject. The graduate school tradition of dissociating teaching from scholarship in advanced academic degree programs, likewise contributes. Rejecting the plaint that teacher evaluation smacks of supervision and the public school, Cohen and Brawer note that the community college is, by its own assertion, a teaching institution. "Some type of instructional supervison seems warranted with the proviso, however, that it have deliberate purpose." They add that "a process of supervision with specific intent to cause particular changes in instructional practices can be the coordinating mechanism."

This sub-section proceeds, therefore, from the belief that teacher evaluation constitutes such a mechanism. The acceptance of evaluation principles and the need to establish norms and procedures for systematic assessment of teaching performance as it relates to student learning, should be a requisite for the centers' own faculty and their students.

In their richly documented study on faculty evaluation, Cohen and Brawer provide an excellent analysis of the difficulties in identifying criteria upon which to base such assessment, and a frame of reference for the establishment of evaluation procedures. Fundamental to their analysis is the assertion that the purpose of faculty evaluation is to improve instruction and thus learning. Further, as with Bloom, they contend that learning itself can be appraised objectively only if instructors specify clearly and in adequate detail what they expect the student to acquire, and have a critical awareness of the combination of methods, techniques and strategies at their disposal to enable this to happen, as well as the measures to be used in the evaluation process. When it comes to the adoption of teacher evaluation measures in line with these basic contentions, however, they paint a dark picture of the current state of affairs.

The crux of the difficulties which prevail today regarding teacher evaluation, Cohen and Brawer believe, lies in our lack of knowledge about the relationship between teacher personality and behavior, and student learning; between teacher performance, and its effects. They examine the lack of correlation between measurement scales of these two factors; they note the fallacies of regarding teacher performance as a sufficient condition for judging the output of the teaching-learning process; they deny that teaching competence can be observed directly in the actions of teachers, when at best these merely infer such proficiency.

They note the multiplicity of conflicting theories advanced to justify various approaches, as well as the absence of any theory or testable assumptions undergirding too many others. They cite low correlations among such variables as supervisory ratings, pupil gains, and instruction-examination results. They detail deficiencies in the definition of evaluation criteria; the danger of using criteria which are only proximate to learning mastery; the lack of agreement or consistency on what to measure, what instruments to use, and the unreliability of the measures extant. They criticize the consideration of teachers apart from their effects on students, and the viewing of either group "without consideration of the environments in which they labor." And much more...which to the writer appear quite valid, and which for Cohen and Brawer suggest the futility of engaging in most present teacher evaluation activities.

A particular instance of their pessimism is contained in their comment on teaching rating schemes. They point out that such approaches generally attempt to rate people, and in a fashion usually isolated from "task, criterion, and the total school situation." Although learning is an internal process which can be shaped by external forces, the person of the instructor is only one of those forces in a total learning environment. They also remark on the extreme difficulties of securing objective, comparable measurements on the various items on the rating scales. Indeed, the "scorecard" approach to evaluating teacher performance and effectiveness is regarded as meaningless if it is not related to assessment of what student learning has taken place, and is perhaps made unnecessary if the latter is done.

As a consequence of their bleak review, Cohen and Brawer do not thereby conclude that faculty evaluation is profitless. For if the evaluation criteria can be validated against ultimate purposes, i.e., changes produced in students and demonstrable student learning, they do feel that something of worth can be added to institutional functioning. They therefore advocate assessing instructors on the basis of student gain towards specific learning objectives, which "moves the entire issue of evaluation closer to the ultimate criteria of education." Such an evaluation criterion is seen as also desirable because it "can help education as a whole move into (a) sphere in which it can predict, manipulate, and accept accountability for its actions--in short, become a profession."

These changes produced in students, they note, are to be "viewed as products toward which the institution strives, rather than processes in which it engages." Although they do not believe long range changes, however desirable that would be, can as yet be reliably measured, they will settle at present for measurable short range changes. While Cohen and Brawer acknowledge that reliable measures for assessing the outcomes of teaching are still lacking, and there are a host of difficulties impeding their development, they conclude that it is in this specific realm of evaluation research that effort should be concentrated. They conclude by reviewing certain progress in this regard, and listing the questions to be answered as next steps to be taken.

It is the judgment of this writer that Cohen and Brawer are essentially correct in their view of present teacher evaluation activity, as well as the goals and routes through which future work should proceed. The learning mastery strategy advocated earlier, indeed any student-learning-based systematic effort in educational development, would be well served by the approach they advance. No faculty evaluation process is worth the effort if it cannot be demonstrated that student learning is enhanced as a result of its use at the community college in which it is employed. Any evaluative device employed as a means of judging faculty retention, readiness for promotion, and pay increments is absurd unless a measurement of learning progress is an intrinsic part of the process.* It is therefore proposed that Cohen and Brawer's so called ultimate criterion variable of student gain, and the general analytic framework their monograph presents, be made the chief basis for the centers' orientation and activity in this field. The centers and their articulating community colleges will,of necessity, have to establish a solid framework within which faculty are to develop their learning objectives, lest some teachers posit too narrow or "easy" objectives, and seek only to achieve these. Broad college and program goals (e.g., for electronics technology) should be spelled out, with the faculty then responsible for developing suitable course objectives within their context.

*Of course, if this approach becomes the critical measure of faculty reward, then teachers should not be penalized because of the wide range which may exist in their students' aptitudes. When his students' aptitudes are relatively low (as measured by standard achievement test scores), this should not disadvantage a teacher in contrast to another whose students had initial near-mastery of the subject matter. Provision for consideration of such differences thus should be built into teacher evaluation formulae.

The writer acknowledges, on the other hand, that it would be a mistake to disregard all other possible avenues which might contribute to sound teacher evaluation practice. It would be unwise to discard all of the current methods and procedures, as imperfect as they are, until such time as the proposed yardstick is developed and validated. (Indeed, it may not be Cohen and Brawer's intent either.) Certainly the centers' students should be aware of them, be encouraged to even use and certainly evaluate them, and hopefully in working cooperatively with the neighboring articulated community colleges, perhaps improve on them as well. Though we do not fully understand the complex process by which students acquire factual knowledge and conceptual ability, or those aspects of teacher performance which obviously must have effect on learning, we can employ those related methods of evaluation which would seem to contribute to its improvement. We do, after all, frequently engage successfully in a variety of activities whose underlying principles and broad effects are not really known to us, from the use of advanced technological devices to vaccinatory control of certain diseases.

Well designed and conducted evaluatory procedures other than those precisely related to student gain, can contribute to greater self-awareness on the part of faculty, and thus in some measure to improved performance on their part. It certainly is not denied by Cohen and Brawer that the person of the instructor is an important quality in a total learning environment. An evaluative program that attends to both performance and effectiveness measurements, to process as well as product indices, seems best because it can serve as a legitimate basis for achieving three ends, all of them interconnected and mutually reinforcing: to provide a measure against which to improve upon the most basic index of teacher competency, namely student mastery of learning objectives; to furnish insight into a variety of personality and methodological factors whose structured incorporation into teacher practice can enhance performance; and finally, as a more rational basis for a faculty retention and financial reward system. It might be noted with regard to the last objective that for community colleges, unless one considers longevity in service, no alternative consistent norms exist upon which a reward structure can be based, unlike those institutions where publishing, research, awards, etc., do play a role in such matters.

Some evaluation techniques which have impressed the writer will therefore be covered briefly. To begin with some in the realm of educational "product", Paul Dressel advanced several evaluative techniques which appear useful in appraising whether learning has taken place. It would seem possible to correlate their findings on individual students with the efforts of previous teachers, in approaches of this sort. These techniques include the correlation of grades with student aptitudes; determining progress towards course objectives through use of pre- and post-course tests; measuring student retention, following some time lapse, to determine what elements learned endure; and assessing learning as a factor of work quality in later courses in a sequentially organized discipline.

"Process" procedures which might be examined are such performance instruments as the "Climate Index." This tries to assess classroom climate and incorporates a measure to determine its effect on teaching. It was prepared by John Withall of

Pennsylvania State University and is meant to be used together with the "Social Substantive Scale", and certain other instruments, developed by his colleague Robert Ribble. In tandem, they seek to systematically observe and analyze student as well as teacher behavior, in relation to the latters' instructional strategies. The instruments as a whole are an incorporated part of a teacher preparation project for community college personnel, which the Pennsylvania State University has presented for Office of Education (EPDA) funding.

David Ryans, moreover, whose early work has been much repected in this field, argues strongly in behalf of training observers to assess teacher behavior as a fundmental aspect of teacher evaluation. He recognizes the problems that evaluative data is subject to being unrealiable, biased, and gathered on the basis of indeterminate criteria. Procedurally, therefore, he calls for limiting the range of behavioral dimensions, with assessment based on very specific, precise operational definitions of characteristics to be evaluated. He warns, further, of the need for controlled verification of observer conclusions by obtaining reactions from similarly trained observers. His measurement instruments seek "stabilized" teacher performance, not overlooking either their attitudes, philosophical approach, emotional stance or communications abilities. That so careful an effort, by so experienced a researcher, evidently did not result in maximum reliability of the measurements, is an indication of the problems that Cohen and Brawer believe inhere in such approaches. Without question, however, Ryans' work does offer much of value with regard to teacher performance evaluation and, in the proper context, can assist institutions and individual teachers in improving their efforts.

Other group assessment activity may be useful. Together with supervisors and peers, faculty and prospective faculty could review and evaluate critically one another's performances. Such subjective approaches, while hardly sufficient, can be effective and should not be summarily dismissed. If conducted in an on-going fashion, it should be possible to overcome the anxiety producing tenseness and self-consciousness that characterize "one-shot" type classroom visitations. The classroom visitation procedure might itself be instituted (although audio and video-taped performances are more versatile substitutes), the whole point being that while teaching is a personal matter, it is not a private concern. Experienced faculty with skill in counseling and evaluating young faculty might be invited as observers as well. To be certain, there will be difficulties in evaluation, for there are differences over what constitutes good style, techniques, methodology, etc. But neither is everything relative. Thoughtful comments can prevail over crude and subjective practices, and afford meaningful consensus on characteristics and approaches differentiating between good and poor performance. They will fail to contribute to improved performance if they degenerate into bull session level exchanges of helpful hints and unsubtantiated "constructive criticism." Their purpose should be to provide specific help to teachers, however, and not to stand in judgment. They are in no case, it must be stressed again, a substitute for concern with student learning indices, and without such concern, could be perceived merely as sessions handing out praise or blame.

Faculty self-evaluation is another technique. Cohen and Brawer cite it with some favor, noting that Brown and Thornton and Sinipon and Seidman delineate factors, procedures and tools upon which it might be based. They correctly point out that any self-evaluation approach is less useful when no follow up is used to determine "whether anyone had changed his teaching practices as a result of what he learned about himself."

Student evaluations of faculty are not new, and are increasingly utilized. Possible skewing as a result of student bias can be diminished, and faculty can be meaningfully assisted in diagnosing their performances by observing patterns of responses that cluster around particular strengths or problem areas. The Moraine Valley Community College in Oak Lawn, Illinois is in the process of further refining a promising student evaluation procedure, which would constitute sixty percent of the total evaluation weighting used in considering teacher promotion and merit pay increases. (The other criteria are a director's evaluation-thirty percent, and a course evaluation-ten percent.) This particular student evaluation instrument was designed by and for all faculty, although selected students are participating in the design process.

2. Reorganization of the Curriculum

Any consideration of curriculum design will benefit from a review of past oscillations in the academic pendulum. There is a danger in being carried away by radical demands for curriculum reform which, however germane in some respects, have their importance distorted by the strenuousness of current efforts to gain them a hearing in the face of entrenched conservatism. The *New York Times'* education editor, Fred Hechinger, has commented on the recent proposal by Dean Ernest May of Harvard College for a reexamination and updating of that schools' curriculum. Hechinger noted that curriculum reformation in the United States runs in cycles. He then traced developments starting with the original, post-Colonial concept based on the limited, classical unity of the education of ministers, gentlemen and scholars. This was followed by an activist, service-oriented curriculum approach triggered by the industrial revolution and the conquering of a continent; it was in part introduced by the land-grant colleges to help peasants to become farmers and entrepreneurs, and in part by Harvard president Charles Eliot in the late 19th Century through an elective system permitting students a free choice of subjects. More recently, Hechinger notes, curriculum was shaped by the search in the 1920's for a new social and educational cement. The solution was found in the "ideal instrument" of general education in the required three major areas of the humanities, the social and the physical sciences. This received an authoritative postulation in the so called "Red Book" published under the presidency of Harvard's James Conant. It is the "Red Book" which is now under attack, although it should be noted that the state and community colleges were never fully under its influence.

Dean May's question, whether the undergraduate curriculum should remain "exclusively academic in character," is timely. The problem impinges very much on the program of the proposed graduate centers, and Hechinger poses the issue properly: "It is a challenge to some to defend the traditions and to others to plead an intelligent persuasive case for those radical departures that so far have had mainly the benefit of only sloganeering and rhetoric." This portion of the study is based, therefore, on the assumption that in addressing the issue of curriculum development, it is essential to balance concern for coherent objectives and continuity with that for reform.

The charges leveled against college academic programs today are many; most incorporate a concern for "relevance." Speaking from her own experience, as a community college professor, Mary Wortham has noted that "college teachers, after all, have much in common with their students: they are looking for relevance in their education." To be sure, this word, and free-floating complaint against educational endeavor as being "irrelevant", could become the petard upon which its users will be hoisted. With respect to such charges, it becomes equally appropriate to demand that any alternative curriculum organization approach meet reasonable standards of suitability, viability, and broad applicability.

Under the umbrella of relevance, the call for curriculum reform fragments into many more specific statements and/or demands. Following are those propositions with which the writer is in accord, because of their relationship to community college requirements and possibilities:

a) The first stresses that values are always incorporated in curriculum, even if only subliminally, and hence calls for their being made explicit in an atmosphere of free examination and debate.

b) The second believes that the increasing complexity of the world and the growing corpus of knowledge, requires a reexamination of present curriculum requirements to fulfill students' needs in general education.

c) The third advocates that undergraduate colleges organize their curriculums so as to relate to and shed light on major societal issues.

d) The fourth sees a dangerous artificiality in the manner in which we organize, conduct research, and teach the various academic disciplines, and calls for their re-shaping along interdisciplinary lines.

e) The fifth attacks the complete separation of the teaching-learning process from the gathering, interpretation and application of knowledge in the world outside the college walls, and seeks a better integration between the academic environment and the world of work.

f) The sixth would do away with foreign language requirements as a mechanistically applied prerequisite for most undergraduate degrees, and for those graduate programs preparing community college faculty.

g) The last demands that students participate significantly in shaping and setting the priorities of the curriculum.

The writer concurs with each of these statements or demands which,it should be noted, are neither new nor terribly revolutionary. They will be discussed further in sub sections of this and the next chapter.

Some rather radical interpretations have been given to the just listed demands or statements. These include a belief that no shared cores of knowledge exist, their transmission is thus impossible, and the consequent responsibility for faculty is to "tailor make" and personally direct to a great extent each individual student's academic program. A second such interpretation would abandon all effort to teach basic subjects like English grammar or chemistry, unless students fully concur in advance in their importance.

A third rejects any role for faculty other than as managers or resource people steering the students toward the experiences, media and repositories where the knowledge and ideas they seek can be found. A fourth fully equates off-campus experiences with learning and classifies instruction as the directed evaluation of such experience. It then contemplates the disappearance of campuses as we now know them, and in their stead conceives of the college as a highly versatile switching center capable of advising students where the "true campuses" exist out in the world, and then helping the students interpret their experiences upon their intermittent return.

Yet another radical interpretation would have the faculty abdicate all or most responsibility for deciding what is worth knowing, and how that is to be accomplished, and leaving it to the students, the "real grass roots" of the academic community, to set all curriculum goals and priorities. Finally, there is a call to invest in curriculum organization itself a fundamental responsibility for the direct, even immediate reform of political, social, personal and other ills. This last interpretation would envisage a sort of activist, political type of education on the one hand, and a pedagogy of therapy on the other.

Most of these more radical proposals have been advanced without any clear concept of learning objectives, and posit mainly a vague formulation of freedom in the areas addressed. Lacking concern for learning objectives, their thrust is also in a sense a manifestation of McLuhanism, with its glorification of medium and process, to the complete exclusion of message and product. Finally, some of these more radical proposals fail to address the problems of massive educational endeavor, and at best direct themselves to the education of a very small proportion of the college age population. For all of these reasons, they are not considered for incorporation in the proposed centers' programs.

Having stated this, it should be reasserted that this study believes in the need for relevance in college curricula. This requires a continuingly reinforced and reshaped obligation upon colleges for developing their student's responsibilities as world citizens, for their social experiences and actions, and for their concept of community. Experimentation with both radical and moderate reforms is needed to bring further renovation and flexibility into college curriculum organization and development. Not only the proponents of radical reform, but the proposed graduate centers as well, could make important contributions in this field if the problems involved were addressed conscientiously. The writer therefore offers some questions for a proposed agenda of inquiry regarding these more radical reforms:

1. If students are encouraged to give full vent to their preoccupations, can reasonable time frames and compassable limits be placed on their curriculum choices, to assure that some common cores of knowledge and culture are imparted? Should the instructor, the administration and trustees, and the public supporting the college never set priorities, never intervene with their own values, or beliefs as to what is critical, what peripheral? Are faculty to offer only what the public demands? Or again, in the sense that education is purposeful, not random activity, shouldn't they accept responsibility to establish goals and objectives for learning?

2. What will be the effects on relatively unsophisticated, poorly motivated, low achieving, low autonomy level students if the outside world almost literally becomes their campus? If all fixed requirements are dropped, will students be simply encouraged to "to play only from their strengths?" Should not students also be encouraged to "over-extend" themselves, to cope with new and different subjects and skills than those in which they are already self-confident, interested or proficient? How will the need for occupationally oriented students for a general education base, as well as mastery of specific skills, be satisfied?

3. Do the faculty advocates of such proposals overestimate their individual intellectual qualities and leadership potentials for guiding students' learning goals in unstructured curricular situations? If no faculty mentor is appointed for each student, how assure that responsibility for their learning is not effectively diffused among teacher/advisors ultimately responsible only to themselves?

4. How insure, moreover, in institutions where enrollments number in the thousands, that the initial flush of faculty and student enthusiasm and involvement in building individual curriculums won't begin to fade and academic anarchy prevail?

5. Only authoritarian pedagogues wouldn't agree that a teacher's task is to exploit a student's present interests so as to lead him on to broader ones. But are there not dangers that faculty might engage in unacknowledged processes of manipulation of student interests? At least when learning objectives are set, they require manifest statements regarding desired behavioral outcomes. If there are no such stated objectives for a course, and formal courses themselves hardly exist, can we be assured of a sufficient pool of highly objective faculty who will not intrude their own biases in such unstructured curricular situations, if only in self-defense?

6. Does breaking down the "false" walls between life and education, in order to "set patterns for a lifetime of learning," not really propose a teaching-learning environment of no constraints and deadlines? Is this what life is like, and would such an approach really prepare for life?

7. How assure that extreme liberty to set curriculum objectives will result in relevancy, and not degenerate into immediacy, into dazzlement "by the latest burning particularity?"

8. If not only the classroom, but the campus itself plays a much diminished role in intellectual nurture and personal maturation, how satisfy the frequently expressed faculty and student desire to form part of a community? What about the need for a pattern to the persons encountered and continuity in human interaction and relationships? What about the fact that interest in learning is for many sustained and reinforced by contact with others similarly engaged?

The answers to many of these, and other important questions raised by demands for radical curriculum reform, need to be formulated and hopefully can be tested, if they are ever to have more than transitory effect on curriculum reorganization efforts. (One such attempt is the "University Without Walls" project of UREHE, the same agency under whose auspices this present study has been conducted.) The sub-sections on curriculum content which follow represent what is regarded as a feasible and necessary beginning towards reform in this area of community college activity. They are proposed elements in the shaping of the academic programs of the new graduate centers.

a. Incorporating Values

In the sub-section dealing with the setting of learning objectives for behavioral change, it was noted that such objectives include student values. Values, as objectives, will be dealt with in this sub-section. The writer is aware that Krathwohl, et. al., classify values as falling within their taxonomy of affective domain objectives for student learning. However, separate treatment of value objectives in this section is justified because the importance and inevitability of those objectives seem most obviously demonstrated within the context of a discussion of curriculum organization and priorities. Values cannot be regarded as irrelevant ideological baggage in the educational process, to be "washed out" of collegiate concerns. They should be included among those explicit learning objectives which undergird the design of curricula and courses.

It is important to stress the inclusion of values because persons active in the use of behavioral techniques often try to maintain a neutrality in this area, or even state that all value objectives should be avoided. Some behaviorists give the impression that the teacher should not go beyond encouraging the "flowering" of those values already latent in the student. This viewpoint may arise among strict behaviorists, particularly those who are conscious and perhaps awed by how possible it is to manipulate students with techniques, when they move from the realm of imparting simple skills and knowledges to material in the more complex, value-laden domains. Their disavowal of value objectives may thus be an honest attempt to avoid efforts to "brainwash" students.

However, even a simple set of facts or skills cannot be totally value free. (E.g., can there be such a phenomenon as a value free presentation of history?) Values are expressed when themes like "man and his relationship to environment" are made a basis for curricular organization; for "crime in the streets" or "job security for union labor" may be considered by some as more pressing themes for curricular concern. The organization of a curriculum expresses values by the very priority of themes it incorporates.

Gunnar Myrdal, in a series of lectures delivered at Princeton University in November 1969, noted that when specific value objectives are not incorporated in a program, the result is a "logical indeterminateness that leads to uncontrolled bias." Not only must programs possess specific value premises, he stated, "but there is no such thing as a social science, for instance, which lacks value judgments." While Myrdal was referring specifically to social and political programs, his remarks are equally pertinent for educational programs.

Values, or attention to the institional culture or ethos as some would phrase it, must be imbedded in the educational process and environment as part of a planned and deliberate effort toward securing the type of community and society desired. To cite an instance, persons concerned with the processes of domestic and international development are increasingly cognizant of the role social agencies and schools especially, consciously or unconsciously, play in communicating norms affecting their student's attitudes and actions in society. The community colleges may use, misuse or overlook their potential and effects in performing a political socialization function (i.e., in developing attitudes regarding participation in the political process, social trust and political efficacy), but as institutions they shape their students in this regard, willy-milly or otherwise.

At least in the goals it sets for itself, any community college that conceives itself as more than a job skills training center must go beyond the knowledges and skills related to career occupational and college transfer education. Inevitably, and in the context of the thesis advanced, a variety of values animate the preceding and subsequent sections of the present study. Their justification is hopefully sufficiently established in each instance.

All such values must be examined, debated, and ultimately accepted or rejected by each center and community college in response to different internal and external forces. To the extent possible, value objectives should be treated like other learning objectives, with the techniques previously described serving as the basis for systematic effort in this field. Those responsible for establishing the academic program must wrestle with the question of "what attitudes and whose value system?" But at least under this approach the attitudes and values incorporated in the program are consciously drawn, can be tested for, and are made known to the students, faculty, administration and, indeed, the society at large. In such circumstances, furthermore, they can be more readily challenged than if they are subliminal or vaguely expressed.

Of course, determining whether student behavior is changed as a result of setting value objectives, is far more difficult than their incorporation in the educational program. This certainly becomes clear if one thinks about such a goal as "teaching respect for individuals." Such value learning, moreover, will occur not simply as a result of procedures which function for material in the cognitive domain. In the case of the cited example, the "institutional press" must furnish models for such desired behavior; the student should repeatedly experience such respect towards his own person. Hence the necessity for the proposed centers and community colleges to be deliberately cognizant of their role as environments in which organizational structures and manifest behaviors, as well as stated intentions, incorporate and display the values posited as objectives of the teaching-learning process. Obviously it will be difficult to measure achievement of such value objectives, although the continuing work of Krathwohl and others indicates this is far from impossible. Institutions should not flinch from this requirement nor, ultimately, eliminate learning objectives in this domain merely because they do not fit the procrustean bed of present measurement techniques.

b. General Education and Required Courses

As previously implied, it is believed that the community colleges and the proposed centers should balance the constraints and freedoms confronting students in building their academic programs. Above all, support for flexibility is not meant to imply that the students' programs should not incorporate and require certain core subjects. Despite his own sympathies for giving students greater latitude in curriculum construction, Newcomb notes that if students elect only those courses which in advance appear to them as relevant, how will they acquire new relevancies? The general education program has the responsibility of extending the students' perceptions of what constitutes the relevant world.

Whatever the nature and goals of the post-college activity of students, for most of them the lower two years of undergraduate education remains the period when a general education should be fostered, even if it is not sought. Effectiveness as individuals, as workers, as members of groups, still entails possession of a shared base of knowledges, skills and attitudes. Robert Wiegman, moreover, quotes remarks by B. Lamar Johnson to the effect that any curriculum "should give central recognition to the fact that general education is an essential element in preparation for employment," and that "studies repeatedly reveal that workers more frequently lose positions because of a lack of general education that because of a deficiency in technical skills." Fortifying Johnson's remarks is the realization that the aspirations of most community college students, namely for positions of a middle management nature, will require broad preparation in diverse fields that enhances their capacity for professional and personal growth, that goes beyond the immediate skills required for initial job entry.

Wiegman's brief monograph with respect to the general education of career occupational students makes recommendations for broad curriculum organization in this area, with which many concerned with the preparation of all community college student could agree. The largely self-evident general education curriculum breakdowns he makes are, with slight modification, thus advocated as a functional basis for the organization of the academic divisions (not departments) of the proposed centers. These divisions would be responsible for the construction and presentation of their respective academic programs, including the general education introductory courses logically related to their fields of concern. The divisional breakdowns proposed are:

- Communications and related technologies
- Social and behavioral sciences and related technologies
- Science and mathematics and related technologies
- Arts and humanities and related technologies
- Business Administration and related technologies

Merely calling for such divisional breakdowns in place of standard departments is, of course, an insufficient description of the concerns, focus and organization of the programs they will offer. For this reason the following two sub-sections on a societal issues approach and an interdisciplinary focus contain essential aspects and justifications of this proposition. The relationship and placement of the career occupational programs within these academic divisions will be further discussed later in the study.

It is appropriate at this point, however, to make some observations regarding requirements for courses in the general education portion of the curriculum. While satisfactory demonstration of learning mastery of the fundamental communications skills must normally be required, challenge examination procedures should be established to make it possible for qualified students to skip formal courses in these areas altogether. Nor should there, in any case, be too many specifically designated required introductory courses. Introductory courses certainly should not be required, as it has been charged they sometimes are, solely in order to permit the college to assign students to them for enrollment management purposes. With the advice and consent of his advisory board, (these will be discussed subsequently), each student should be permitted some leeway in self-defining that mix of general education and advanced courses to support his chosen field of academic concentration. With carefully supervised use of the learning objectives technique students can choose courses on the basis of their reputation for quality, without falling into the trap of encouraging faculty popularity contests.

Where these general education introductory courses can be kept to a semester or quarter in length, students have even greater flexibility in building their programs, and can explore a richer, more diversified educational experience. The use of less than semester duration courses might be explored, in recognition of the varying length of time required to cover certain material.* Finally, independent study programs as part of or in lieu of regularly offered courses, should be encouraged and the student given credit for their completion, if he can articulate his learning objectives and can satisfy his advisory board that the work is germane to his educational program. If future teachers are altogether unexperienced with this latter approach, it will be unrealistic to expect they will permit, much less encourage, similar behavior among their own students. Above all, the general education aspect of the curriculum must carry an important share of collegiate responsibility for instilling a delight in learning in students. Stimulating in students a sustained desire for intellectual growth may indeed be its salient function. The discussion which follows on a societal issue approach to the construction of the general education curriculum, acquires importance from a presumed contribution to student interest in learning that would be derived from its help in giving shape and meaning to worldly phenomena and problems.

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* An example of this can be seen in nursing education where the essential requirements for mathematics and chemistry could be readily encompassed in a matter of weeks, rather than in the mandated semester or even year long courses typically found in this program. Perhaps more to the point regarding the necessary knowledges which nurses must have for their professional responsibilities, would be to integrate the requisite skills needed in mathematics and chemistry as applied to the administration of medications, in an interdisciplinary course on materia medica ' giving attention to its mathematical, chemical, physiological and pharmacological implications. The basic courses in mathematics and chemistry available to nursing students in most community colleges today, are potpourris which have no relation at all to their graduates' professional requirements.

c. Societal Issue Approach

A recurrent refrain heard today is that the present generation of students is more self-aware than past groups, more concerned with questions of identity, more searching and striving, and possesses a highly developed sense of personal and moral urgency. The writer is incapable of assessing the truth of this, but does feel that today's college students are certainly no less sensitive to these matters than their predecessors, and are obviously more outspoken in their demand for curricular reference points related to contemporary issues. In fact, it is possible to boil down the demands upon present curriculum organization to a quest for a "living" curriculum. So viewed, curriculum reform would not only have to incorporate some vision of an integrated educational objective, but one that also at least helps define the central issues confronting contemporary society.

The writer feels that the general education aspect of undergraduate curriculums should derive a major share of their validity from their pertinancy to societal problems. This is not to assert that ancient history or Victorian literature, for example, are irrelevant to today's student. But the relevancy of their content to current problems and student/societal concern, should be significantly manifest in their presentation. Jencks and Riesman note that students expect "a visable relationship between knowledge and action, between the questions asked in the classroom and the lives they live outside it."

A societal issue orientation need not, indeed should not, imply that the general education curriculum thereby assumes a further responsibility for solving these problems directly. Direct involvement in current problems is obviously laudatory, but it leads to advocacy, not objectivity. College is still the place for study; the call for relevancy in curriculum organization should refer to relevancy of study, not of action with the college as base point. Care also must be taken in framing up a new general education curriculum that the issues examined are those which are constants in our contemporary world, persistent in human affairs, and that course content does not descend to the level of current events "headlines". This suggests, moreover, to forestall a shallowness of approach, that the issues be examined in the full perspective of their historical development, utilizing as necessary tools the various related branches of knowledge with their ordered imput derived through study and research.

Such a societal issue oriented general education curriculum should not exclude certain prerequisite type courses, such as those directed to building communications skills. Community college students will still need to take the specialized courses deemed essential to their various future callings. These more advanced courses, however, could still in many cases be constructed around societal issues. Moreover, as will be discussed in the following sub-section, a societal issue oriented course can be best presented in an interdisciplinary fashion. Such courses need lack neither breadth, depth, nor intellectual "bite," if faculty recognizes that vast amounts of superficial data can be eliminated from such courses. Several additional recommendations follow:

-The individual centers and community colleges must have the authority to develop the curricula and courses most appropriate to their situations and student clientele.

-It should be fully explored whether the material in introductory courses require a full academic year of study; or could be encompassed in a shorter period of time.

-Responsibility for each of the basic general education courses should be assigned to an appropriate interdisciplinary academic division, but personnel from other divisions must participate in their construction and presentation.

-Students should not be expected to take all such introductory courses, only a balanced selection as approved by their advisory boards.

It would be most appropriate if succinct examples could be furnished at this point, illustrating the nature and specific content of the proposed introductory general education courses. Unfortunately, the writer lacks the background to do this properly in any of the interdisciplinary divisional areas listed, much less give appropriate cognizance to imputs required for such courses from several divisional areas. Indeed, by their very nature, these courses should be designed by interdisciplinary teams in a manner not dissimilar to that which resulted in the "new physics" and "new biology" at the secondary education level. No fully satisfactory finished examples were located by the writer in any of the literature or institutions examined.

Attempts along these lines, however, are evidently being made at Baker University, as reported in the Chronicle of Higher Education for December 1969, in its review of a study of current innovative collegiate approaches by Michael Brick and Earl J. McGrath. Stanford University has recently begun to develop a sequence in human ecology taught by an interdisciplinary staff drawn from such fields as medicine, biology and behavioral science. It begins with work in basic biology, but also focuses on biological and cultural evolution, and studies of man as an organism. The second year is a biologically oriented course in the behavioral sciences. The recently instituted interdisciplinary, societal issue focused general education program of New York City's New School for Social Research, should provide considerable assistance to the staff of the proposed centers.

Thematic examples in mathematics, science, environmental studies, technology and communications suggestive of the types of courses proposed, are contained in Warren Susman's recent study calling for a reconstruction of the curriculum of Rutgers College. Indicative of the tenor of such courses are the following excerpts from Susman's study:

> Mathematics: "...there ought to be some course in the college where the basic nature of mathematics could be explored and understood by undergraduates who did not seek or need more advanced technical knowledge. Such a course might explain what it is mathematics seeks to do and how it does it. It could introduce...number theory and set theory...logical analysis, the basis of computer work and of statistics, the mathematical foundations of cybernetics and systems analysis, game theory, etc. There are obviously a host of issues that could be discussed and that would provide the general student with some basic understanding of what mathematics is and why it has become increasingly important that we understand this particular way of expressing and using certain kinds of relationships..."
>
> Environmental Studies: "A major shortcoming in the work of the college is its failure to provide a systematic and effective program concerned with the nature and role of man's environment and his relationship to it...we need a more general...major program for students who are, perhaps, most interested in combining scientific and social scientific interests. Obviously, here is an opportunity to use work in sociology as well as geography, geology as well as botany. Ecological studies have significance for political scientists and historians (who have interests in demographic study and have frequently discussed land use, soil depletion, and other ecological issues as major factors in history). Nature, Wilderness, Conservation -- these are all key ideas in history that have had consequences for the history of the mind, for the development of culture, as well as for man's physical and social development. The arts, too, have offered a special vision of man's relationship with his natural environment. There are issues here that are poetic and aesthetic as well as crucial issues in public policy; there are issues that are scientific and technical and others that raise important moral issues as well..."
>
> Technology and the Social Order: "The role of technology in modern world is so obvious that I cannot imagine any modern college that does not offer some technological studies -- I mean not simply professional studies for would-be technologists but also studies for those who increasingly must face the problems of living and working in a world which technology plays a profoundly important role. Yet where

are such studies? There is work in some departments that bears directly on this wide area (in sociology and political science, for example) but this is only a tiny beginning. There are, after all, many departments that could make a significant contribution.

> "History could contribute with an historian of technology... Sociology, political science, geography -- these are obviously interested disciplines that have much to contribute. In recent years there has been a whole series of important studies...that have suggested the impact of technology on the imagination of writers and artists, on poets and architects... We should call on our colleagues in Engineering. We need a course that can describe and analyze the nature of contemporary technology. Work in engineering design is valuable both in understanding the logic of the engineer's approach and the problems involved in the solution of basic design problems (social, physical, personal), the aesthetic and perhaps moral issues that arise. Again, can we propose we are in fact relevant in today's world without suggesting that we all ought to be aware of the technological environment, its causes and consequences? Isn't it significant that an approach like systems analysis, so important in certain areas of engineering, has become increasingly important for the study of the social sciences as well?... Don't we need a wider understanding of the basis of computer technology and the consequences of the whole technological revolution caused by cybernetics and the increased application of computer science?... Do not those who will work and live as professionals in these areas also need what they can gain from the study of work in history and the social sciences, from philosophy and the humanities related most specifically to the nature and role of technology?"

Examination of these materials indicates that it will continue to be a problem to insure that subject matter content is sufficiently substantive to escape the charges of superficiality often leveled at survey-type courses. Likewise illustrated are the difficulties which inevitably will be encountered in avoiding duplication of material between courses. Above all, it is clearly indicated that the faculties of the proposed centers must be given sufficient lead time prior to the opening of classes, not only to design their specific courses, but also to discuss, debate and align their thinking on issues of this nature. This last point becomes particularly significant in light of the immediately following discussion of the problems involved in developing interdisciplinary courses in general.

d. An Interdisciplinary Focus

The previously referred to Muscatine report noted that it is appropriate to characterize most graduate schools as first and foremost in the business of training specialists. Graduate students are seen primarily as initiates preparing for a defined vocation who must acquire appropriate credentials and specialized skills. These specialized skills, moreover, are an academic version of the economic division of labor which underlies technological, scientific and industrial activity. Despite its utility, the report also observes that the human costs of academic specialization may be as severe as those operative in industrial specialization. One approach suggested to better serve the graduate student would be to end the practice where the candidate is required to be a master of all the fields within an academic department (however obscure some may be, one might add), and of little else. Such requirements for comprehensive competence within a department's defined area of concern generally require unnecessary study in an excessive number of subfields. They also pose for the student a formidable barrier to genuine inquiry in those subjects most relevant to him. A "specialization in breadth" was the term suggested in the report to describe a healthier alternative. This would seek to prepare students to solve the problems they expect to confront, rather than attempting to produce automat-type walking encyclopedias in departmentally defined areas.

While one can concur with these observations, they do not appear to go far enough. The issue in examining traditional departmental-type organization of fields of study is not just one of specialization versus generalization. As Jencks and Riesman point out, it is also whether some approaches to aggregating specialized knowledge are better than others. In addition, the preceeding discussion of a societal issue nexus for some proportion of the courses in the curriculum, surely implied that many of the new discoveries being made in knowledge occur only when an "interdisciplinary view" is taken of the world and its phenomena. Finally, there appears to be a need to assist students in synthesizing the material in a curriculum, since one cannot assume they will themselves always do this on the basis of discrete disciplinary exposures.

A rapid expansion has occurred in the body of knowledge, with accompanying changes in the emphases on personal intellectual and societal needs. New theories and fresh methods are being advanced for organizing and interpreting knowledge. Established pedagogic theory is being buttressed by the rapid pace of change in today's world to insist that educational objectives must focus on the students' potential growth and future development; emphasis not so much on static bodies of present knowledge, but rather on patterns of knowing and recognition of the interrelationships of knowledge.

For all of these reasons, one can justify a requirement that faculty in diverse, but related fields, periodically collaborate in the preparation of curricula, course content and organization, reading materials and study guides, and laboratory requirements. Indeed, a minimal way of facilitating and encouraging such collaboration would be to organize the centers and their articulated community colleges along some version of the divisional lines previously listed, rather than traditional departmental basis. Moreover, a reinforcing justification for an interdisciplinary approach lies in the observation that its greatest contribution may reside in its stimulation of revitalized faculty thinking on subject matter and its organization. It requires interaction among a team of faculty specialists, and encourages continuing reexamination of precepts, data and their interrelationships.

In fact, a rejection of the notion that knowledge can be compartmentalized along traditional disciplinary and departmental lines has become an commonplace in discussions on the ills of collegiate education today. The paucity of college programs consistently reflecting a meaningful integration of knowledge is puzzling in view of the current stress on the need to consciously plan and organize the curriculum to accomplish this purpose. For this reason, the brief allusions in the original proposal to EPDA from which this study proceeds, for an "organic, non-disciplinary organization of curriculum," proved most diffficult to evaluate.

There is neither clarity on what is actually involved, much less concensus on the approach to take in designing an interdisciplinary curriculum, in the literature presently available on this subject. According to Garrison's nationwide study, the faculty interviewed preferred interdisciplinary content and instruction in their graduate preparation. "Teachers felt that the interdisciplinary approach would (1) provide the necessary broader knowledge base for later teaching of general courses at the freshman-sophomore level;

(2) diminish the research emphasis; (3) help the prospective teacher to have a more-than-usually flexible approach to materials and methods of instruction." Garrison, however, does not include any further elaboration on what the teachers had in mind. Yet "interdisciplinary" can mean different things to different people, as will be shown in the following brief analysis.

The term "discipline" in this context is little more than an administrative category and refers to areas historically delineated by departmentalization. For example, the generally recognized disciplines in the social sciences would be anthropology, economics, history, geography, political science, psychology and sociology. Within each discipline there are rational, accidental and arbitrary factors responsible for the peculiar combination of subject matter, techniques of investigation, orienting thought models, principles of analysis, methods of explanation and aesthetic standards. Thus each social science discipline looks at a part of the world of human behavior in its own peculiar way.

In fact, disciplines in any field are characterized by their special filtering and interpreting devices. Over time the members of a particular discipline acquire a shared set of principles by which their inquiries are directed. These principles direct the disciplinarian to observe certain facts out of the virtually infinite variety of possibilities. These facts are organized by the conceptions --the make-sense patterns--of the discipline and thus given meaning. As Joseph Schwab has persuasively demonstrated in an article on structuring academic disciplines: "The scientific knowledge of any given time rests not on the facts but on selected facts--and the selection rests on the conceptual principles of the inquiry." Moreover, it depends also on the way facts are interpreted, and "this, too, depends on the conceptual principles of the inquiry."

The structure of the discipline, therefore, tends to determine what aspect of reality is studied, how it is understood, and the relative validity of the descriptive and explanatory statements derived therefrom. This parceling up of the world may be efficient for some research purposes. But the gap between a discipline's perspective on its chosen part of reality and the world of common experience, very often reaches such proportions that meaningful communication with anyone outside the discipline breaks down. Each discipline has its central concerns; phenomena which fall on the peripheries or in between disciplines do not receive attention. Often, problems of great moral or social consequence remain uninvestigated because they do not happen to come in range of the myopic conceptual eye of any particular discipline. Since specialization of this kind has its disadvantages as well as advantages, many students and scholars have been attracted to interdisciplinary study.

Three distinct approaches to interdisciplinary study in both curriculum and research can be epitomized in the prefixes multi, cross and pan. The multi-disciplinary approach involves the simple act (not easily accomplished in many graduate schools) of physically juxtaposing several disciplines. A student might take courses from several departments, or individual courses might be team-taught by professors from different disciplines. This approach frequently involves no systematic attempt at integration or combination in an intellectual sense, but merely an exposure to more than one discipline. Many research teams and conference panels follow this pattern. Each disciplinarian does his own thing in his own universe of discourse. Consequently, communication can be poor and whatever breadth is achieved tends to remain superficial. Introductory survey courses often take this multi-disciplinary form. Though interdisciplinary work of this "multi" kind may be better than narrow specialization, a questionable eclecticism tends to emerge. The most outspoken critics of interdisciplinary work usually have this approach in mind. The writer does not advocate use of the multidisciplinary approach to curriculum construction.

The search for similarities and differences, however, leads to cross-disciplinary generalizations. In cross-disciplinary work certain organizing principles are utilized which require the student, teacher and researcher to focus on relevant data, ideas and methods and not discipline boundaries. In other words, a non-discipline-bound conceptual knife slices the environmental raw material in a different manner. Probably the most popular example of this approach is the societal issues or problem-oriented study discussed in the preceding sub-section. Since the "real world" is not divided up in the same fashion as academic departments, course organization based on the narrow perspective of one discipline is at best naive and in the worst instances may lead to disastrous mistakes. Economists have learned this lesson the hard way in the realm of applications. Many of their recommendations to the less developed countries have proven irrelevant or erroneous due to their failure to consider the social and political context of their culture-bound models.

The problems approach has much to recommend it as a principle of curriculum organization in community colleges and therefore as part of the preparation strategy proposed for their teachers. However, this writer would recommend against making problems and societal issues the exclusive rationale and curriculum base because of their weak conceptual principles. It is a valid practical application, but the focus on societal issues provides little basis for constructing a general analytical framework which is readily transferable to other slices of reality. While one objective of good education should be practical relevance, another should be the provision of an analytical structure which can enable students to comprehend new and different situations as they present themselves.

There is, however, a variant of the cross-disciplinary approach which attempts to fulfill this more general objective, and emphasizes organization by overarching principles, methods and arts of inquiry. For example, "organisms--structure and function" may serve as the selecting conception for a course of study and contributions from philosophy, sociology, biology, anthropology, zoology and other specializations could be utilized. This approach is difficult to implement well, but in another study on the relationship of curriculum to student protest, Schwab notes that it contains the potential of providing a fresh perspective on old disciplines and old ways of thinking.

Arguing for the inclusion of this approach in every student's basic education, especially during the first two years of college, Schwab comments: "Pervasive specialism unexamined creates in students the illusion from which we all suffer to some degree--the illusion that subject matters as now distinguished are the inevitable products of natural divisions." He argues further that not only is there little grasp of the sterility of present divisions, but even less of methods for replacing them. One way to heal these divisions is the creation of interstitial cross-disciplines which attempt to bridge the gaps between the disciplines. Existent examples include economic anthropology, social psychology, political sociology, human ecology, etc.

It is the writer's recommendation that a combination of these two cross-disciplinary approaches should be utilized to construct the introductory general education courses, as well as subsequent more advanced courses wherever possible.

There is a third major approach to breaking out of the discipline set, which is not recommended. They direct attention to an analysis of the structure of knowledge, can be characterized as pandisciplinary approaches, and are numerous. They include Boulding's use of a single idea; namely, the subjective image, through which he tried to analyze the behavior of all disciplines; the work of the phenomenologists, who are interested in how people structure their experience, and then investigate the "presuppositions" that influence observations and thinking; and the creation of grand conceptions transcending the disciplines, which restructure the manner in which the universe and its sub-fields are studied, or attempt to discover fundamentals or "primitives" which are shared by all the disciplines in a particular area. Of the many attempts at building grand conceptions under the pandisciplinary approach, perhaps the most successful thus far is general systems theory, as illuminated in such works as Barnard's *The Functions of the Executive*, Wiener's *Cybernetics* and Shannon and Weaver's *The Mathematical Theory of Communication*. Extensive and evidently successful variant applications of general systems to basic social science have been attempted by Alfred Kuhn and George Homans. The writer is not convinced, however, that these pandisciplinary constructs have as yet reached the point of practical applicability where they can make significant contributions to the proposed centers and their articulated community colleges in their efforts to reconstruct curricula to meet the needs of their student clientele.

Finally, this writer would agree with those who explicitly exclude from the meaning of "interdisciplinary" the function of interpretation and wisdom as defined by investigators like Winthrop. The quest for the good life, for a "world philosophy," is not an activity to which the label "interdisciplinary" should be applied. These are virtuous endeavors, and an interdisciplinary background may be of assistance to those capable of and wishing to make significant contributions. But an interdisciplinary approach in and of itself cannot realistically strive to produce "generalists" who are competent to encompass and resolve all of the world's problems. Such a program would turn out mostly dangerous dilettantes. On the other hand, it bears repeating that the above definitional and pragmatic remarks should not leave the implication that the writer emphasizes exclusively the cognitive side of education. There are other kinds of valid learning objectives, including the examination by students and faculty of the moral dimensions of situations, or the attempt to influence values, as embodied in the endeavor to prepare individuals committed to democracy and cognizant of the complexities and responsibilities of freedom.

Despite the many difficulties that a cross-disciplinary curriculum organization will entail, it is proposed that the new graduate centers take the actions necessary to incorporate just such an approach and supportive staff in their programs. At the minimum, an interdisciplinary option should be available to the students of the centers. What does not seem necessary, or really appropriate for community colleges, is the approach employed at Chabot College in Hayward, California. In that institution, an attractive interdisciplinary tutorial program in letters and science is limited to a group of 150 students with high verbal aptitudes, utilizing quality course materials generally of a primary source nature. A useful aspect of the program lies in its incorporation of science and mathematics, as well as the humanities, in its interdisciplinary general education curriculum. While the latter feature, in the sense that it also requires work across divisional lines, should characterize the centers' development of such programs, it is not believed that interdisciplinary studies need be confined to small units of students with high academic achievement and rich cultural background. While this view is not shared by some with much better credentials to speak to the matter than the writer, he is encouraged by the fact that William Moore has successfully utilized an interdisciplinary program for marginal students at Forrest Park Community College in St. Louis, and is currently introducing the same in Seattle Central Community College.

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It seems apparent that the socializing and emulation impact of the present graduate education structure will not encourage curriculum exploration along the lines proposed in the preceding discussions of general education, academic divisional organization and societal issue orientation, culminating in the recommendations for a cross-disciplinary approach. Nor can it be asserted with any authority that this combination of approaches is a proven better mode of preparation for community college students and faculty. The attempt, however, would at least reflect the fact that the requirement for breadth in academic preparation in such institutions, is different from that of colleges where academic specialization is more the order of the day. It would recognize that knowledge, reality and societal issues cannot be properly examined within traditional departmental frameworks.

An alternative preparatory channel for community college faculty can explicitly introduce its students to the kind of thinking, and incorporate elements of the interdisciplinary approaches and other considerations, which have been recommended. Unless such alternative preparatory routes exist, the prospects for such experimental development to become widespread in community colleges, are bleak. Unless their faculties are themselves prepared in this fashion, there can be little expectation that such approaches will be attempted in any but a miniscule number of community colleges. A final observation which should be kept in mind is the evidence that success in such ventures is very much a function of the faculty personalities involved, and their ability to work compatibly together. Hence another qualifying element is introduced, in addition to those implicit from the discussion of learning mastery strategies, with respect to the selection of faculties for the proposed centers.

e. Off-Campus Experiences

A previously posited objective of the proposed centers, and by inference of the community colleges, is the importance of overcoming the sharp, isolation chamber type discontinuities which often exist between the campus and the "outside" world. To be sure, sentiments which would lead to a complete erasure of what are regarded as necessary distinctions between these realms of activity, have been rejected. However, a long established collegiate practice exists, with a rich and analyzable record of experience, which offers an appropriate instrument to accomplish a considerable portion of these and other desired objectives. Known variously by such names as work study, extra mural or cooperative education programming, the technique offers a multidimensional range of benefits and activity. Over the years since their first introduction in 1906 as a component of college preparation, such experiences have not only engendered much enthusiasm for their educational and social benefits, but many different models also have been developed for their incorporation into academic programs.

The inclusion of such off-campus student experience in the programs of the institutions under discussion, at the minimum would complement the other ways proposed for giving attention to the need for curricula relevance. Properly conducted, their purpose should be to lessen the alienating disparity between the professional objectivity which is the hallmark of academic work, and the personal subjectivity which underlies the concerns of many youth about our society's goals, styles and actions. That this is particularly important to the preparation of future teachers is underlined by Jencks and

Riesman who note:

> ... just as those who expect to play an active role in society may benefit from theoretical study of the activities they will participate in, so those who expect to theorize or teach may benefit from having participated in a practical way. A man must, after all, learn who he is and what life is through a variety of different experiences. A professional training program that concentrates on a single mode of learning and knowing is almost by definition a poor one. (emphasis added).

That other dimensions of activity, as represented by off-campus experience, are seen by some as equally important for undergraduate college students themselves, is reflected in the preliminary master plan of New Jersey's Brookdale Community College, which incorporates as one of its goals:

> To utilize the total community as a laboratory for learning, placing its students, where practicable, in a real world laboratory with the solving of problems rather than the mere accumulation of knowledge as the end goal; so that the student may understand and utilize what he is doing in relationship to the world of work, the world of governance and the world of human relationships.

In institutions where programs to provide off-campus experiences have been most fully developed, like Antioch College, a "classical" formulation of the goals of such activity has emerged. They attempt to enrich the students' education, foster a mature attitude towards academic studies, and assist in their personal development and growth by providing a setting in which interaction can take place between the theory and practice of their intended occupational or professional fields. A related aspect of this formulation is a requirement that the students be paid for their work, on the basis of the assumption that they mature best when faced with the responsibilities of a job for which they are financially compensated. It also is anticipated that the participating students will receive in the process a realistic exposure to the rewards and drawbacks of their chosen fields, and as a consequence verify to some extent whether they are headed in career directions appropriate to their talents, personalities, and interests. There is a further assumption that an opportunity to reflect on and relate the ideas gained in the classroom setting with the reality of on-the-job responsibilities, provides a feed back mechanism for reshaping the students' academic programs, and a typical synergistic effect wherein the whole experience becomes greater than the sum of the various components. In addition, the variety of work experiences, often in settings far removed from the college itself, provides opportunity for an extension of the social and cultural offerings available on the campus itself.

Finally, concern for attention to learning objectives in the affective domain, has resulted in considerable attention to such matters on the part of some of the staffs responsible for directing these off-campus programs. The multidimensional nature and the very structure of these programs, in fact, always had made attention to this latter concern a highly latent, if not always utilized, possibility. Off-campus activity affords a realistic arena for the emergence and discussion not only of a student's educational and career concerns, but also of such matters as his personal and professional ideals, inter-personal relations, work discipline habits, etc. Their inevitable and inextricable presence in off-campus multidisciplinary programs, as a consequence helps strongly justify this type of activity for reasons not always apparent in consideration of work-study programs.

Lately, there has been recognition that for achievement of many of its purposes, the off-campus experience does not necessarily require a work setting in the specific career field towards which a student may be pointed. It has been found that more can sometimes be accomplished with respect to a students' maturation when the work setting offers opportunities and challenges impinging on a broad range of his personal and professional concerns. Off-campus activity is evidently a particularly excellent way of giving students an understanding of, and sensitizing them to, the clientele of the public service and helping professions, like social work, teaching, etc. Off-campus experience, in other words, can provide insight into such future work environments by illuminating the aspirations, background cultures and educational experiences of those served, which are usually dissimilar from those of the participating students themselves.

Considering the change agent responsibilities defined for community colleges in the first portion of this study, moreover, a Stanford University program announced last October points to yet another possible dimension and manner of constructing off-campus student activity, at least for those able to forego paying jobs. Entitled the Stanford Workshop on Political and Social Issues, the program is led both by students and faculty who volunteer their time, with academic credit given to participating students. The workshops examine issues of local and national concern on a first-hand basis, or by using the experiences of members of the Stanford community.

The first ten workshops established centered around such problems as welfare, conservation, disarmament, housing, industrialization, public health services and air pollution. The plan is to investigate "the factual basis, the political context, and the legal questions" surrounding each subject, and then to seek to offer solutions that can be put into effect by appropriate agencies. The conclusions of each workshop are to be summarized in reports, although these have been described as not the primary purpose of the workshops. The program has been further described as adding not only relevant material to the curriculum, but also as providing a means for students to channel their academic efforts in the search for solutions to local problems. Faculty participants have acknowledged that immediate change would be an unlikely result. However, in the process of the workshops, students can gain insight into the adequacy of present mechanisms for administering the matters studied and their ability to effect change. This approach, while avoiding the action orientation even of VISTA type programs, would appear to afford a not unmeaningful way of further introducing relevance into curricula programming. It is believed by the writer to constitute a possible extension of the uses and concepts of traditional approaches to off-campus activity.

The earlier cited "University Without Walls" proposal by UREHE, also presents a number of provocative ideas on how a student might use off-campus time to extend the dimensions of his academic experience. It envisages combining the principles of work-study procedures, with the use of "outreach" technological devices like educational television, and a more imaginative definition of a student's program requirements than is usually the case. In addition to offering courses on campus, such an institution's faculty would advise on student participation in short terms seminars developed and offered off-campus by "on-the-site" non-faculty experts. While it is not believed that this approach is appropriate as the essential method of constructing academic programs, the UREHE proposal nevertheless incorporates interesting student time-use models which are encompassable within an off-campus multidimensional program.

Both the Stanford University and UREHE proposals underline the relationship of older approaches to work study or cooperative education, with more recent calls for the granting of academic credit for non-academic work. Such concepts recognize that students learn not only from what they read or hear in class, but also from what they do and whom they meet. Each of them provide opportunities for healthy psychological "breathers" away from campus, for that significant number of students who find the continuous years of schooling mandated by society in one or another way, stultifying if not oppressive.

It has been found that for off-campus activity to be successful, the program must provide skilled professional supervision and guideance , and a process of continuing evaluation of a student's experiences, work performances, and developing personal objectives. Such off-campus activity can not be treated merely as a means of finding paying jobs for students, but must have its own depth and intellectual content. It must be related meaningfully to the rest of the academic program, and be integrated with the total institutional effort to assist in the personal maturation of the students. There must be a periodic review of the jobs open to the student, and the decisions he makes to cope with his assignments. Maximum results would appear to call for a special staff to coordinate the discharge of such responsibilities, and one which is aware that students' needs for guideance, while engaged in off-campus activity, may arise at any time of the day or week.

As a consequence of these factors, off-campus multidimensional experiences are not an inexpensive educational technique. They will require a separate budgetary allotment for the staff to counsel the students both on and off campus, and to provide coordination with employers. Experience with these programs also indicates that a large pool of potential employers must be maintained. The academic institution must exercise tight program control and supervision. Employers, moreover, must provide stability in student job opportunities, which will take place only if they come to recognize that their cooperation is neither a luxury nor a gratuity granted the student and his college, but offers values of significance to their own organizations as well.

Successful programs will require flexible college course scheduling, and the evolution of varied procedures rather than a rigid approach to operations. Different student bodies and different employment situations will further alter each institution's realization of this program element. Regular academic faculty will demand, and should, be intimately and periodically involved in ongoing planning of the program, with special attention to its relationships with their own teaching activities. Treated as a secondary objective in any institution, an off-campus program can not be successful: the mechanics of college operation, the curriculum, and the academic calendar, must all be designed with the requirements of this type of activity given careful consideration. It requires a deep commitment from both faculty and administration. In the case of academic work which must be taken sequentially, program offerings must be available at all times to permit students returning from off-campus experiences to pursue logical course progressions.

While students participating in off-campus programs receive credit for the activity, the time required for that, plus what also is necessary for the completion of other academic work, generally results in an extension of the period required to obtain a degree. Even in a typical semester or quarterly alternation of work and study, however, the time required is not twice the normal, due to more intensive use of the calendar year, and the granting of credit for off-campus activity in place of other required credits. The opportunity to earn money during the course of a college experience, futhermore, makes it financially possible for some students who would otherwise be unable to attend. Colleges conducting such programs likewise attest that because a considerable portion of the enrollment always is absent from campus, considerable efficiency in plant use and faculty staffing patterns results.

Although it must be conceded that little quantifiable evidence was discovered to prove that the goals sought in off-campus programming are actually attained, it bears repeating that not all valid learning objectives lend themselves to such measurements of success. Extensive reading in the literature reflecting use of this technique, moreover, indicates that the student and faculty involved are often highly pleased with the experience. This at least offers some impressionistic evidence of its good results. Without question, nonetheless, the proposed centers and community colleges choosing to utilize this technique, should undertake efforts to demonstrate as objectively as possible that the off-campus programs they offer are indeed effective, efficient instruments for their stated purposes. Academic institutions ultimately should use no technique merely because it seems good and satisfying to the students and faculty involved. Simple comparison with the results of conventional education techniques would not constitute a fully valid measurement scale, however, since the qualitative differences of off-campus multidimensional experiences should be evaulated on their own terms as well.

The steady growth of such programs across the nation is certainly some indication that the difficulties cited above do not constitute insurmountable impediments to the adoption of off-campus programs. Jobs for participating students are increasingly stable, the programs themselves have shown resilience despite the changing nature of the nation's economy, and the technique appears adaptable to a wide range of academic fields and societal concerns.

Supervised professional teaching internships constitute a functional example of the use of off-campus multidimensional experience. These are proposed for the graduate levels of the new centers' programs, and will be detailed later in the study. The appropriate level for the incorporation of the just discussed type of off-campus experience in the centers' programs,would be during the junior and senio years of undergraduate education. Although the justifications and benefits of having the centers begin their activity as early as junior year will not be discussed until later in the study, it is appropriate at this point to discuss off-campus experience in that context.

Each center or community college will have to evaluate whether other means available to achieve the objectives possible through off-campus experience are sufficient, or as good. Certainly the recent surge of federal congressional interest in the concepts and benefits of such programs, and the funds being made available to support their establishment, should not be overlooked when such decisions are made. The writer is of the opinion that this type of experience for students can be very valuable, and advocates its incorporation in the programs of both the centers and the articulated community colleges. Aside from the other benefits discussed, to do so will encourage and legitimitize for future faculty, their own recognition and use of non-academic modes of learning.

Because there will be ample opportunity for job-related activity in the professional internships, as well as for other reasons cited earlier, the off-campus experience of the centers' students could be in fields unrelated to teaching per se. The range of possible activities is still vast: from those concerned with societal issues and transformations of the voluntary study type envisaged in the Stanford Workshops; to those of the "University Without Walls" proposal type, wherein future teachers of sociology might engage in union organization in the South, or those of psychology work as recreation aides in a mental hospital; to those more typical in programs of this nature, such as selling textbooks to schools, or by working in a factory or government office. Most important, in view of the anticipated changes in the nature of the community college student clientele, future faculty should engage in activity which will give them insight into the problems, sociology and life styles of inner-city youth and marginal students. As in the case of the professional internship, the students engaged in such programs should maintain a log of their activities, incorporating reactions and observations on their experiences, both for their own reflection and self-actualization purposes, as well as to provide a basis for discussion with the staff directing this program.

3. College as Community and Other Affective Concerns

The titular designation "community college" has been inverted to fashion the heading of this section to pinpoint attention on their responsibilities in the affective domain generally, and most specifically with respect to the personal relationships of their students and staffs. Such an inversion is suggested in a paper of similar title by Rita Johnson, who notes that collegiate institutions habitually deal with these matters as if they were "peripheral to the 'central' task of educating students."

The inevitability of institutional and faculty affect on students' value systems which accompanies the imparting of cognitive objectives was previously discussed for reasons set forth at that time. The thrust of this section is that changes are similarly stimulated in students' behaviors in all those other areas classified as falling within the affective domain. Moreover, there are still independent reasons for the proposed new graduate centers and articulating community colleges to be as concerned about setting learning objectives in the affective domain as they are in the cognitive. In addition to value objectives, therefore, this section addresses itself to those affective goals which are included within such categories as students' interests, attitudes, appreciations and interpersonal adjustments. In other words, we are concerned here with learning goals which emphasize feelings, emotions, and degrees of acceptance or rejection, as contrasted with the knowledge achievements, competencies, productivity, intellectual skills, etc., associated with the goals of the cognitive domain.

A separate section dealing with the affective domain is necessitated in part by the persistent and erroneous belief that cognitive objectives, if attained, will automatically result in appropr-ate affective behaviors.

The Krathwohl study contests this view, and holds "that under some conditions the development of cognitive behaviors may actually destroy certain desired affective behaviors and that ... there may be an inverse relation between growth in the two domains." This study points out that literature courses may instill knowledge of the history of writing, or details on particular novels, etc., "while at the same time producing an aversion to, or at least a lower level of interest in, literary works." Conversely, one may note that the teacher who aggressively asserts he is concerned solely with cognitive objectives has thereby signified his activity makes a distinct impact on his students' affective behavior, although in this instance probably only in the negative sense. Differing instructional approaches in the cognitive domain can thus cause positive or negative feelings in the affective area.

Misconceptions about a strict dichotomy between the two domains may, in fact, have arisen from the practice of distinguishing them for purposes of analysis. But it would appear more likely that many teachers simply fail to search for the affective counterpart to cognitive behavior and consequently neglect many opportunities to positively advance affective learning. Colleges do affect the total maturation of their students, and therefore share responsibility for it. Explicit in the approach proposed for a learning mastery strategy were specific references to the inextricable influence of a host of affective domain behaviors on cognitive development. These included factors such as student motivation, perseverence, and the reinforcement of interest in further learning resulting from the achievement of success. Obversely, Bloom goes even further when he states that "mastery learning can be one of the more powerful sources of mental health .... If ... students are given positive indications of adequacy in learning, one might expect such students to need less and less in the way of emotional therapy and psychological help."

There is the possibility, to be sure, that a pretentious pedagogy of therapy, as some would characterize it, might result from heightened collegiate institutional concern for students' personal development. This is, however, only a possible danger, not a necessary result. George Kateb's contention that "adjustment crowds out philosophy," is merely an unproven assertion. It might similarly, and as unfairly, be contended that such comments as his emanate from faculty who feel personally threatened by the challenge of caring for this aspect of student development as part of their teaching responsibilities. Arguments over which of the two domains of learning is more important or appropriate to educational institutions, are essentially fruitless and indeed reminiscent of the centuries-old dispute between apollonian and dionysian philosophic viewpoints. The reality is that human activity and growth must give attention to both domains, to affective and cognitive goals and objectives, to rational as well as emotional elements and needs of the human personality.

It should not be too surprising that responsibilities in the affective domain, particularly those at the greatest levels of complexity, are becoming of increasing import to colleges. Many of the significant anxieties felt nowadays in modern societies are not encompassed within what are usually regarded as the conventional political, economic and social categories. (E.g., do I possess my fair share of political power, economic wealth and social status?) Certain minority groups and the underclass in general, are properly still deeply troubled by these latter issues. For many of them and for the rest of our people, however, the impinging issues today also include a heightened concern for individual identity and social community. In all likelihood, the search for solutions to these problems has gained impetus from the consequences of contemporary dramatic technological and organizational changes, from a breakdown in family units and cohesion, and from shifts in religious, ethical and moral standards and practices.

Interestingly, this search echoes both philosophically conservative reservations about the changes being wrought in society by industrial progress, technological innovation, and large scale urban development, as well as liberal humanistic concerns about mankind's well being under their impact. Colleges, by playing an intimate role in fostering some of these changes, not unexpectedly get called to account to justify or at least help ameliorate what are regarded as the undesirable consequences of these broad developments for our society. Community colleges, it may be noted, are in an especially vulnerable position in this regard. This is because they emphatically accept as a major institutional responsibility the preparation of students for productive roles and satisfying lives in a society characterized by, and accepting of, these changes. The challenge to them to reconcile this endeavor with the resultant as well as persistent individual and community needs of their students and staffs, is thereby made particularly poignant. It is these individual and community needs which might be construed as constituting some of the "higher" or more complex levels of affective domain learning goals.

Finally, the need for attention to the affective aspect of learning objectives is underlined by the realization that preparing students even for a productive occupational role, cannot be achieved simply by concentrating on cognitive processes. The working graduate whatever his job or role, is placed in a matrix which requires his understanding, acceptance and ability to deal not solely with narrow factors of production, but also those of a human and interpersonal nature. These latter factors, indeed, are part and parcel of his ability to function in the world of economic production, and as a result must be dealt with by colleges in student preparation. They must be sensitive to the fact that students need non-academic, as well as academic help to fill such roles most effectively.

In summation, therefore, the students' needs as human beings, citizens and workers require colleges to treat the affective domain as carefully, and with as much structure, as the cognitive. Meeting this challenge presupposes that functional distinctions and definitions can be clearly made, analogous to those which have been identified in the cognitive area, between the simpler affective learning objectives, and those of a more complex nature. It further assumes that colleges can provide learning experiences to help students develop in the desired manners, and that systematic techniques can be devised to appraise the extent to which students have grown in these ways. It calls for strict attention to the communications and role relationships that exist among and between a college's students and staff. It demands that colleges and their staffs internalize policies, structures and attitudes giving recognition to this challenge and facilitating the impartation of affective along with other institutional objectives.

It is the writer's impression regarding progress in research and practical applications towards all of these just listed requirements, that educational institutions have barely left the starting blocks in their efforts to achieve these goals. An authoritative, comprehensive approach to responsibilities in the affective domain, for instance the previously cited Taxonomy by Krathwohl, Bloom and Masia,was only relatively recently published. Certainly it has lent new emphasis and focus to concerns in this area, and constitutes a benchmark of contemporary effort in the field. Moreover, their work at least implies that the just stated requirements can be met given sufficient cognizance of the problems and investment of resources. The authors lucidly examine the challenges and attempt a clarification of objectives in the affective domain. They explore the reasons for resistance to efforts in this area, the dearth of evaluation material, the relative lack of systematic effort to collect evidence of growth towards affective objectives, and the continuing erosion of faculty and institutional attention to these objectives. They realistically set forth the difficulties impeding the search for "a continum that would provide a means of ordering and relating the different kinds of affective behavior." They note, finally, that "clearly there is a need for conclusive experimentation and research on the relations between the cognitive and affective domains."

Their work and subsequent studies indicate however, that despite the great gaps in current knowledge and techniques as compared to the massive and systematic efforts which have been made in the cognitive area, colleges should and indeed may realistically set and attempt to impart many of the objectives posted in the affective domain. It would be a mistake, however, to fail to acknowledge the low present state of our knowledge of categories, relationships, causal factors, methods of measuring, etc., in the affective domain. A great amount of investigation still remains to be done if the achievement of such objectives is to become a truly systematic aspect of collegiate activity. On the other hand, the proposed centers and articulating community colleges would be derelict if they did not join in the effort to advance our knowledge in this field and make changes in affective behavior a co-equal objective of their teaching-learning processes.

While the writer cannot objectively evaluate the quality or the efficacy with which results are achieved, he has observed that accomplishments can be made in the affective domain when learning objectives are set forth clearly and the faculty accepts responsibility for their achievement. At institutions such as College of the Mainland in Texas City, it appears demonstrable that the mere factor of caring about such outcomes, does become a factor in their achievement. At that institution, for example, many at least impressionistic evidences were gathered of changed student behavior in terms of their general motivation and feelings about their academic studies; of enthusiastic faculty and student use and respect for liberalized processes of democratic governance; and of marked shifts in student attitudes towards black Americans in a community which by most criteria must be classified as funamentally and traditionally conservative on this issue. Undoubtedly the college could attempt to measure such changes more systematically; more importantly, it would seem possible to identify and replicate their techniques and practices to achieve similar results elsewhere.

It is beyond the scope of this study to make specific recommendations in areas of affective behavior where the existent research and techniques are seen by the writer as still largely hypothetical or speculative in nature. It would perhaps be sufficient to stress the overall importance of such learning objectives, and leave it to the proposed centers and articulating community colleges to develop their specific programs in this area. This is, in fact, the general conclusion of this part of the study. The remainder of this section, however, will address certain areas of college activity, impinging strongly on behavior in the affective domain, which are either such an ongoing part of academic life that they cannot be overlooked, and/or are acquiring an importance of late to the point where they should not be disregarded. (Quite obviously this should include attention to the formal organizational framework and informal working climate of the academic governance structure. The necessarily full treatment required for this complex problem, however, was not felt to fall within the purview of this study.)

As in the earlier discussion on evaluation of teacher performance, it is conceded that the following sub-section dealing with interpersonal relations and student counseling, fails to demonstrate how institutional structure and staff activity can be objectively correlated with student gain, in this case in the affective domain. Of course, this is made particularly difficult because each of these areas of activity relates to the previously noted questions of individual identity and social community. These aspects of affective behavior surely stand on a level of complexity analogous with the highest mental processes which might be posited as objectives in the field of cognitive learning. Therefore, because the "state of the art" does not yet permit, only factors of "process," and not those of "product", will be addressed. Here again, the discussion and recommended approaches are advanced on the basis that we can sense that there are serious affective consequences resulting from these fields of activity; institutional and staff "performance" in them can and should be improved even if we are not yet fully capable of objectively measuring and relating their effects to individual changes in student behavior.

a. Group and Interpersonal Relations and Counseling

Institutional preoccupation with the feelings of students and staff can become a chimera. Such feelings run the danger of being treated like articles for conspicuous display. A whole range of manipulative "games" have been brought into widespread use, with their objectives often not wholly clear. Some of their advocates, like George Leonard in Education and Ecstasy, are bewitched by the idea of engineering social attitudes and personal emotions. At times they seem to be trying to fashion virtual utopias with the use of such techniques. Much of their effort, as Joseph Featherstone has noted, "bears the marks of the vacuum it emerges from".

On the other hand, the problem with critics like Featherstone is that they often seem content to merely poke fun, to point out the vagaries and jargon surrounding such activity, without offering viable alternatives for achieving realistic aspects of their goals. These critics' destructive comments are rendered that much more unacceptable when they acknowledge, as does Featherstone, that contemporary educational practice is generally "dessicated and alienating...ignorant of students' potentials for learning and...blind to the link between learning and feeling." But he literally leaves it at that.

The need for effort in this area cannot be treated so cavalierly. The traditional concerns of education have been too confined to words, symbols and rational concepts. Moreover, in recent years the promise of qualitative educational benefits and fiscal savings has led to the increasing computerization of administrative processes like registration and scheduling and the introduction of technological innovations into the teaching-learning process like programmed machines, massive class sizes, educational television, self-study carrels, and even attempts at computer-assisted instruction. Possible justifications in their behalf aside, these innovations introduce additional dehumanizing elements into the educational environment. The point being made is not that they should be abandoned, but that their justifiable use adds new weight to old concerns about the long standing authoritative/subordinate relationship in student-teacher roles.

Erik Erickson has noted that the usual years of college attendance are a time when humans are particularly concerned with their search for identity and intimacy. Faculty are called upon to respond intelligently and sympathetically to demands that their role encompass a variety of qualities, including that of parent-surrogate, counselor and friend. This means that the teacher must not only know his subject matter field well, but also something about his students' growing self-awareness. It means that collegiate institutions must provide services which facilitate student self-understanding as an inherent part of the educational program.

The problem in responding begins with the realization that teachers may lack the time, the insights and self-knowledge to make their activity in this field productive and to avoid its becoming a personally horrifying and even dangerous emotional trap. The purpose of this sub-section is to suggest approaches which the proposed centers and their articulating community colleges might adopt to become more productive in this regard. Future faculty must be assisted towards awareness of tensions inherent in their work; given opportunity to exchange ideas on these matters with their peers and teachers; exposed to alternate methods of handling typical problems that can arise; shown possible approaches permitting multi-level interaction among the groups within the college community; and made cognizant of the resources in the community which can be turned to for assistance. The colleges themselves should organize their activities to permit attention to these matters, and to stimulate as much human interaction as possible.

It seems necessary to first put to rest a widely shared concern about the consequences of the dominant commuter status of community college students and faculty. It has been suggested by some that the normal frustration of efforts in the area of interpersonal relations is compounded by both this commuter status and the fact that such a high proportion of community college students work while enrolled. Garrison's study, for instance, indicated many faculty hold this opinion.

The writer is indebted to Joseph Cosand, President of the St. Louis Junior College District, for first raising serious doubt about the presumptive consequences of these student clientele characteristics. Convincing evidence that students are not significantly effected by their commuter or work status is contained in American College Testing Program Research Report No. 28. Their extensive questionnaire and analysis demonstrates that community colleges can indeed make learning in interpersonal relationships a productive aspect of their programming. The Report's conclusion indicates that in the broad sample of community colleges surveyed, commuting and working were generally unrelated to students' satisfaction, sense of progress, and nonacademic as well as academic achievement. Participation in nonacademic areas of activity was only slightly reduced compared with other students, with the Report noting that perhpas commuting and working students "make adaptations which allow them to participate in the life of their college...do the things they want to do by simply finding time to do them."

The three areas of activity in which approaches are recommended to heighten student learning in the field of interpersonal and group relations, are listed immediately below. They should be incorporated in the organization of activity in the graduate centers, as a means of consciously introducing the prospective teachers to their use and benefits.

1) Organization of Student Personnel Services

Student self-awareness results from a composite of curricular and extra-curricular, formal and informal, professional and peer group experiences. In recognition of this, colleges usually have evolved separate and distinct student personnel service departments to attend to the non-academic aspects of their programs. It is a premise of the study's analysis of the mutuality of affective and cognitive learning, however, that many of the counseling and guidance functions generally assigned to such departments cannot be properly accomplished through agencies wholly separate from the teaching faculty. Nor should all such services be viewed as requiring a completely discrete professional ability. The teaching faculty's responsibilities for providing counseling certainly includes, but should not be confined to, advisement on subject matter programming and sponsorship of cocurricular activities. The personal concern of the teachers, the staff members most closely in contact with individual students, can be of indispensable consequence for their emotional as well as intellectual development.

It is thus recommended that faculty contracts and college staffing policy should insure that teachers be available at appropriate times for individual student counseling. During the supervised professional internships of the centers' students, discussed later in the study, they should not only be required to counsel their own students, but become intimately informed about the whole gamut of student personnel services provided at the colleges to which they are assigned.

The imaginative use of varied class sizes (including large group high quality presentations, seminar type groups, and the use of individualized self-study sequences) today makes it possible to increase faculty time available for such counseling purposes.*

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*Consider the following crude example, on which many variations are possible: Ten teachers, meeting five course sections of thirty students each three times weekly, are needed to instruct 1500 students. We are talking, in this instance, of a total of 150 faculty hours. Let us assume that those three times weekly meetings consist of one third lecture material, one third seminar discussion material, and a final third self-study material. Suppose further that the lecture material is henceforth to be presented by the most outstanding faculty available for this purpose before large classes of approximately 250 students each; the seminar material in groups of only fifteen students each; and the individual study material whenever the students wish. The need then is for six faculty hours for lecture purposes (1500 divided by 250), 100 faculty hours for seminar purposes (1500 divided by 15). The learning resource staff needed to supervise self-study activity is minimal, due to the economies of scale possible since such facilities are used by the institution as a whole. The total faculty hours required cannot be much over 110 (6 + 100 + 4). Not only can an argument be made that the suggested hypothetical approach permits a higher quality and more satisfying academic program, but it can be seen that the original ten faculty members, as a group, have additional time available for student counseling or other purposes.

In addition, because the community colleges do not call for research activity on the part of their facilities, there is every reason to demand that they devote additional time to counseling duties.

A useful administrative approach designed to effect savings in staff requirements, as well as reduce the schism that frequently develops between teachers and professional counselors, is recommended for the proposed centers and their articulated community colleges. It has been adopted by several institutions across the nation, including Essex County College in Newark, New Jersey, from whose master plan much of the immediately following material is drawn.

The approach assigns the teaching faculty a heavy measure of counseling duties, in both the affective and cognitive domains, at a so-called first level of such activity. The approach likewise accepts responsibility for assisting teachers to understand the limits of their role in this realm, and methods for referral of students to higher levels of counseling when indicated. In the affective domain, however, teaching faculty responsibility includes awareness of and attention to such matters as the students' self-confidence; mental sets towards the course material and educational program in general; and the influence on their school work of impaired health, familial or job preoccupations, etc. This first level of counseling should not go beyond the point where the students' needs or problems call for a professional counseling relationship.

These latter concerns include such specialized counseling responsibilities as advisement on student choice of vocational and academic fields; job placement; extensive emotional, financial and health problems; and interpretation of achievement, aptitude, interest, personality and psychological testing, including references for still further assistance arising out of these when necessary. For these latter purposes, a staff of professionally trained advisors is made available at a second level of personnel services. However, in order to improve teacher-counselor interaction, these second level advisors are assigned directly to academic divisions such as those discussed earlier in this study.

By so decentralizing the locus of these advisors in place of assigning them to a central pool, it makes possible greater mutual knowledge and respect for their own and the teaching faculty's functions. Students can readily consult such advisors without the stigma often associated with formal visits to centralized counseling services. The divisionally assigned advisors gain a more realistic concept of counseling needs in comprehensive community colleges by being more directly on the "firing line",as opposed to the atmosphere of a clinically oriented central counseling approach.

The third, or central services level of the student personnel office, then functions as a coordinating body for testing, placement, financial aid, health services, student activities, specialized or referral services, and the registration process. The central student personnel staff has direct lines of communication with the teaching divisions through the advisors assigned to them, and can call them in for periodic staff meetings and in-service training sessions. The central staff can be quite small. The ratio of professional advisors at the second level to students can likewise be much lower than is otherwise considered desirable, because of teaching faculty assumption of a great measure of counseling responsibility. Whereas one advisor per 200 students is usually cited as an optimum but expensive ratio, the need at the second level was projected on a 1:350 ratio at Essex County College.

2) Group Process Procedures

Simply assigning faculty increased responsibility for student counseling, and calling for institutional attention to the importance of healthy group and interpersonal relations within the college community, is insufficient. It will not create that climate of mutual trust in which faculty and students can engage in genuine interaction with one another. Considered attention must be given to heightening faculty self-awareness and understanding of their impact in personal and group (including classroom) contacts, and to assisting them to improve their performances in such situations.

The use of audio-video tapes of classroom teaching activity for self and peer group analysis will be further discussed in the section on improving teacher competency. However, by its ability to illustrate how all faculty share many similar problems, including those proceeding form the individual personality characteristics of teachers, this recommended technique constitutes an important way of building faculty strength in this affective area.

Another technique which has received considerable attention of late is the use of such group process procedures as encounter sessions and sensitivity training. To be sure, many critisims have been leveled at these procedures. It has been claimed they encourage personal confession without structure or clarity, and a quasi-tribal groping for togetherness and salvation. They are said to foster an atmosphere of therapeutic charlatanism ("at most a few gagged encounters, some tears, and then the prospect of loving reconciliation"). They are said to substitute open confession and public display for perhaps more important needs like those for privacy, contemplation, and solitude. Above all, they have been charged with being a faddist by-product of a society that is unsure of itself and its direction, and an inappropriate defense against loneliness and frustration.

These are harsh and sometimes perhaps accurate judgments of some approaches to such processes. Nevertheless, the writer's reading, conversations with informed practicioners, and personal experience indicates such characterizations are not intrinsic to the technique. It has been noted, moreover, that group process procedures are objected to by many people precisely because they are emotional, not intellectual experiences, which frankly attempt to change attitudes by other than didactic means. There also exists a tendency to exploit such activity by first citing its good intentions, because that is "in", and then smugly making light of them, since that likewise is "in." Advantage is taken of the ambiguous feelings which group process sessions bring out in their particpants, without recognizing that human emotion is by its nature ambiguous. Ambiguity becomes an object for ridicule, when sympathy is an equally possible reaction. Such ridicule betrays a lack of tolerance for ambiguity, whereas the presence of this tolerance could be deemed one of the highest attributes to be sought in college faculty.

The writer is aware that there are usually good reasons why people do not fully or at all times "open up" in the manner encouraged by group process procedures. This reticence hardly means those so resistant are therefore emotionally troubled. He does not recommend participation in group process procedures in the centers' program except as a strictly voluntary act. Under such circumstances, however, and with proper controls and standards established, it is believed that they offer something of value to the centers' program for preparing community college faculty for their duties in the realm of group and interpersonal relations. They also would be recommended for use by faculty in the articulated community colleges. The question as to whether they should be employed in the community college academic programs, particularly those of a human service nature as has been advocated by some people, is not addressed within the context of this study.

A number of benefits have been identified as resulting from group process activity. Carl Rogers asserts they permit people "to grow, to risk, to change" and brings them "into real relationships with (other) persons." They are said to facilitate understanding of group characteristics, development, decision making and other factors in organizational relationships. Participants have noted personal changes as a result of self-awareness gained. As a consequence of insights into their own role and impact on other group members, some particpants have discovered that their impact does not correspond with their intentions. (The latter effect can be particularly important if it helps teachers learn why they often fail to communicate what they wish to students, and may help them become more effective in subsequent faculty roles.)

Several commentators have noted that with respect to faculty training, an ancillary consequence is the introduction of new teaching modes and approaches to student-teacher relationships. By engaging teachers or faculty trainees in other types of communications techniques than those normally encountered (lecturer behind the desk, students out front), group process procedures break down resistance to alternate ways of presenting material and conducting discussions. Most persons who have participated in such processes (a largely self-selected group, no doubt) indicate they have found them beneficial, particularly where glaring social and cultural differences between students and teachers have constituted an impediment to learning.

They have been used by some community colleges. William Stanley, Dean of Instruction at El Centro College in Dallas, Texas, believes group procedures are a good means of fostering a "provocative tension that encourages emotional involvement, excitement for ideas and agitation for action." He also found they build "a climate which includes acceptance of different ideas, and not necessarily strict agreement." In reporting on his experience with the techniques, Stanley noted that faculty came to care for one another ("nodding acquaintances became closer; antagonistic relationships often were resolved ") Group process procedures also facilitated the breaking down of faculty stereotypes about kinds of students, made them more accepting of different personality types, dress and hair styles, etc. He found they helped faculty deal with some students "without putting them down," and with others "without resorting to kid gloves." In short, they facilitated the emergence of more open and honest relations within the faculty, and between them and students.

As with every other technique proposed in this study, the ultimate test of group process procedures must be in the extent they help in the education of students. No proven objective method appears to exist as yet for evaluating such procedures and their success, particularly over the long run. Finding such evaluative measures must therefore accompany initiatives in their use. Nevertheless, from a diversity of recent commentaries on the technique, the writer has gathered together additional control features, which should be incorporated in their use by the proposed centers:

-Only persons who are professionally trained in directing such groups should be employed for that purpose; these leaders should have a thorough understanding of group and individual behavior, and skill and experience in group process procedures; they should be able to recognize their own feelings, be capable of dealing with others in an open fashion, and competent to recognize symptons of severe psychological stress.

-Personal attitudes of participants should be examined only as they pertain to the individuals' behavior in the group; serious individual personal stress should be avoided; merely "shaking up" individual self-conceptions is not a justifiable activity, and the procedures should rather seek more viable personality arrangements; all of this depends very much on the high competence of the leader.

-Only those approaches which are sociologically based and seek to foster communications and leadership skills, and better group relations within a setting for social learning, should be employed.

-Psychologically based group processes should not be employed, as these are more properly the province of psychotherapeutic techniques; persons with severe emotional problems, seeking relief from mental sickness, should not be included in any of these activities; the processes employed should not stress the unlearning of old and deeply ingrained manners of behavior, nor probe individual psychological case histories.

To conclude, it should be borne in mind that group process procedures are only one of several devices available to foster group and interpersonal relations. Not every participant can be expected to benefit from them even if they have volunteered, are relatively open to learning, free from severe emotional problems, and have some knowledge of their goals and methods. At best, group process procedures offer circumscribed results: increased self-awareness may not show up as radical changes in individual styles, outlooks and behaviors. They are valid in the context of this study, however, if they can assist future faculty to examine and improve those of their attitudes and behaviors which will help or hinder their teaching responsibilities.

(3) Supportive Organization of Instructional Activity

The very manner in which instructional activity is organized can have positive or negative interpersonal and other affective consequences. As an example, and despite its still being in an experimental phase, there seems much promise in the use of the previously mentioned "cluster" or "pack" concept of small group student organization. In the "eight-pack" learning team approach which Essex County College proposes to employ, the aim is to form cohesive groups whose members will study and attend most of their introductory general education courses together. The approach not only attempts to develop peer-study relationships to a high degree, but also through minimizing feelings of alienation to further encourage students to stay on campus and more fully benefit from the activities available. Finally, the "eight-pack" functions as a support group in which counseling can take place.

The concept is dependent on the availability of sophisticated, computerized registration techniques which is not necessarily a disadvantage. It also can have positive ramifications for other aspects of the academic program. At Essex County College the projected large group lecture halls have been designed to permit the "eight packs" to sit within them and function as units for discussion purposes. Each "eight-pack" will be provided space and encouraged to meet in non-scheduled class hours for study, discussion and counseling purposes. Each "eight-pack" is to be assigned an academic faculty "don" who will be expected to meet with it regularly as well as on an ad-hoc basis.

Such learning groups can foster, moreover, the non-competitive peer-group study discussed as part of learning for mastery strategies, and provide opportunity for student intimacy. With the occasional participation of faculty to help assess the variables of the experience, they can afford students insight into the dynamics of group behavior, and their own conduct in group situations. Finally, members of the second level student personnel advisory staff could meet with these teams from time to time, as an efficient way of dealing with the group's questions, problems, etc. They also are recommended for incorporation in the programs of the proposed graduate centers, with each team formed from among students sharing related subject matter and professional teaching objectives in each of the various academic divisions.

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FACULTY FOR TEACHING - LEARNING

Proposed New Graduate Centers for the Systematic Preparation of Community College Teachers

PART II

ED038133

V. Organization of the Academic Program

Having discussed the fundamental pedagogic elements viewed as necessarily animating the proposed centers' programs, we turn in this chapter to the organization of their academic programs. The research and literature in this area of the study's concern is not objective in the sense of providing conclusive empirical support for one or another organizing principle. Programs incorporating elements similar to many of those which emerge from the previous analyses do exist or have been proposed. (See appendix for list of such programs examined.) There also are a variety of reports and conference transcripts available on this theme. These materials range broadly in their practices and recommendations, however, seldom agree precisely with one another, and do not, of course, necessarily address themselves to the program and organization requirements explicit and implicit in this study. Although the writer is clearly indebted to these programs and materials for many of the ideas and criteria which follow, the organizational principles recommended can be regarded only as one person's attempt to harmonize the complex requirements and restraints involved in the centers' objectives.

A. Academic Rigor

In some circles, the mere advocacy of attention to a college faculty's instructional responsibilities, raises the spectre of their preparatory program's debasement into "how to" teacher training methodology. Specific preparatory procedures for enhancing teaching competency which it is believed will avoid this danger are discussed later in the chapter. In addition, it is believed that perhaps the most significant safeguard against this occuring is to insure that the centers' programs are equally attentive to their students' subject matter competency. This was implicit in the section on reorganization of the curriculum. Exclusive preoccupation with teaching-learning strategies and techniques could quickly develop into a form of pedagogic narcissism, and possibly breed attitudes of anti-intellectualism which would indeed call into question the placement of community colleges in the family of higher education.

The present study advocates a balancing of traditional exclusive graduate school emphasis on academic proficiency with appropriate concern for faculty pedagogic responsibilities. The centers' programs should not relegate the processes of reason and academic knowledge to a subordinate place in community college activity, or deny the power of intellect and learning to grasp the nature of reality. Consequently, both subject matter and methodological concerns should be represented in the proposed centers' programs, in some sort of mutually respecting balance. What should be avoided are the ebbs and flows of past ideological controversy in education, signifying little other than that the "metholodologists" had temporarily gained the ascendency over the "academics," or vice versa: As in literary endeavor regarding the demand for attention to both content and style, neither the need for academic or teaching competency can long be faulted without harm to overall student learning achievement.

Moreover, the centers' graduates and the quality of the community colleges employing them, will not be served by preparatory sequences which are "softer" than those presently existing. The community college teacher cannot afford to possess an inferior competence (albeit differently focussed), than his research or scholarly oriented colleague. The fact that he must in addition to subject matter competency possess strong teaching abilities, as well as understanding and skills for his counseling responsibilities in the affective domain, indicates that the centers' programs should differ from, but be as demanding and rigorous as other faculty preparation programs.

B. Degree Designations and Levels

The various existent and proposed programs for preparing undergraduate college teachers offer a thicket of strained and tortured titles connoting "more than _____, but less than _____." An example is the Candidate in Philosophy degree, which Dean Elder of Harvard called: "A bloody epithet that says exactly what it is. I'd be damned if I'd work to get one!"

This study instead advocates that the centers award degrees which afford their recipients the status and academic credentials appropriate to the functions of community colleges. They should permit advancement to the top faculty ranks and their titles should give the centers' graduates the greatest amount of career mileage possible."Without question,the normal B.A. or B.S., the M.A. or M.S., and the simple, unencumbered designation of Doctor of Philosophy meet these requirements."

It is pertinent to note that data collected by Derek Singer, director of the AAJC's Faculty Development Project, indicates little or no consistency in degree requirements by community colleges throughout the nation for advancement through the successive faculty ranks.

Fortunately, the requirement of a doctoral degree for normal passage to the full professor rank is a phenomenon confined largely to community colleges in the northeastern states. The practices followed elsewhere should, therefore, be strongly supported by the centers as part of their leadership function in the community college movement. The centers should assist in legitimizing the choice, not only by career occupational faculty but most of those in the transfer programs as well, to conclude their formal preparatory work at the masters level. Such effort on their part would be defensible from the viewpoint of preparatory sufficiency, and is also a logical necessity in support of the centers' recommended program emphases. Inappropriate pressures for an escalation of required academic credentials must be resisted. The centers should keep this concept in mind in hiring some portion of their own staffs, in full cognizance that it may be uphill work for them to gain acceptance for those of their own senior faculty not possessing the doctorate, from host graduate institutions in which they may be located.

The importance of academic rigor in the preparatory programs of community college faculty does not therefore mean that they all require the doctorate. This would be antithetical to the community colleges' philosophy, student needs and heterogeneity, and their provision of often non-traditional educational programs.

C. Length of Programs

Just as they should not be imitative of present preparatory requirements, the centers' programs need not be similar in length.

The incredibly long interval which de facto usually passes before a person obtains credentials for college teaching should be reduced wherever possible through the elimination of adventitious requirements. According to the Jencks-Riesman study, the typical doctoral candidate actually invests the equivalent of no more than 3-4 full-time years working on his degree. What occurs to extend the number of years usually spent in pursuing the doctorate, especially, is the insidious working of attitudes and obstacles encouraging a variety of reasons for falling by the wayside recurrently, or out completely. The median time taken by recipients of the Ph.D. in English, for instance, has been figured at 9.7 years. A study by Eugene Arden notes that fewer than fifty percent of all Ph.D. candidates complete their studies, as compared with 85-90 percent of medical students. To some observers this situation "suggests an endurance contest, not an educational program." The consequences of this situation creep even into the classroom: "He's working on his doctorate," becomes a rationalization for faculty indifference and failure to spend adequate time and energy on the learning progress of their students.

Such an atmosphere and progress record is wasteful, harmful and degrading to the extent it reflects structured stumbling blocks in the graduate program. The centers should envisage and encourage completion of their programs within reasonable and differentiated time frames.* Archaic requirements for language proficiency should be eliminated, for example. Warren Susman's previously cited study develops some criteria for this step at the undergraduate level. Katz and Sanford assemble impressive argumentation further challenging the claims of those who would retain language requirements at that level, much of which is relevant to the requirements for preparation of community college faculty as well.

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*This is not meant to imply that their students may not progress through the centers at varying paces, any more than the students in community colleges should be expected to advance at precisely the same time intervals.

Another sometimes meaningless demand for time spent in pursuing the doctorate is physical residency requirements. In an interview with the writer, Alan Stratton, Executive Director of the NFACJC, characterized this generally indispensable condition for receipt of the doctorate as a "false hoop through which his colleagues are made to jump." If they comply, he noted, it is because it is "yet another imposition they must bear if they are to play and succeed in the establishment's game." It is, of course, not necessary to impute conspiratorial motives to the persons who shape and direct graduate education, to discern some root validity in Stratton's charge.

Physical residency requirements often do not achieve what would be a valid objective--that of structuring formal and informal interactive contact between graduate students and their mentors. The proposed graduate centers and their articulating community colleges should insure that residency does so contribute to the students' professional growth, and measure that not simply in terms of time spent or endured on campus. It should be further recognized that such a goal in preparing future teaching faculty may in fact be equally fulfilled in non-resident experiences. One might even conclude that for this reason the very term "residency" may be a poor one to describe those interactive benefits resulting from contact between the centers' and articulating colleges' staffs, and faculty trainees. A variety of approaches to insure achievement of these benefits are therefore discussed in the course of this chapter.

Additional specific design elements are called for to implement the requirement for reasonable time frames in the centers' programs. These include the time-saving benefits resulting from organic curriculum construction beginning with the third or junior year of undergraduate education; strengthening the quality and enhancing the status of the masters degree program to a point where it can serve as a sufficient "terminal" professional degree for the majority of community college faculty; incorporating a partially paid professional internship component in the centers' master degree level programs, thereby joining the students' opportunity to earn funds with certain professional preparatory requirements; offering an appropriate doctoral level program specifically supportive of faculty responsibilities in undergraduate education, for that necessary proportion of community college staff who should possess such additional preparation; making it possible for candidates for degrees to enter at a variety of program levels in keeping with their previous experience, education and ascertainable competence; and instituting several scholarship and loan programs for many of the centers' students to permit full-time attendance.

Each of these design elements will be discussed further. For quick reference purposes, and also in anticipation of fuller explication in this chapter, what is proposed is the normal completion by the centers' students of their masters degrees in four years following the sophomore year of undergraduate education, including a one year professional internship experience. The doctoral level program would usually require one year of course work plus satisfactory passage of a comprehensive examination and completion of an applied thesis in the student's field of academic concentration.

It must be recognized that however qualitative and attractive, the centers' programs will have to compete for their enrollments with other graduate programs. The time required to obtain the degrees offered will constitute an important practical consideration for their students. On the other hand, the time frames outlined should permit the centers to cover the various substantive elements necessary for the preparation of community college faculty. The ability to obtain the masters in two years of effort beyond the normal baccalaureate, and a doctoral degree in as little as an additional year and a half, is regarded as posing a reasonable commitment from the centers' students. Later discussion will demonstrate that the professional internship aspect of the masters program could financially compensate the students up to approximately 2/3 rds of a beginning instructor's salary, which is viewed as further ameliorating possible resistance to this requirement.

D. Academic Emphases for Center Students

Two areas of academic emphasis for faculty for the community colleges can be readily identified:

1. Teachers focussing on career occupational program subjects.
2. Teachers capable of presenting the general education introductory course material to all students, as well as meeting the specialized subject interests and advanced course needs of students in the transfer programs.

The first category of emphasis will be treated in a separate discussion below, when other factors which impinge on their situation have been covered and can be brought together in a unified fashion.

In dealing with the preparation of the second category of teacher it must be noted that the two aspects of their functions listed signify only a concentration which would characterize their studies and later work. This would be in keeping with their own proclivities and skills, and the staffing requirements of community colleges, and is not envisaged as producing distinct types of teachers.

It would be a mistake if general introductory course teachers had neither training nor responsibilities for specialized course presentations. Confinement of teachers only to introductory course material, it is felt, would too often result in the pallid, survey type approach to subject matter cited earlier as a danger in such presentations. There is also the possibility that faculty incapable of teaching more advanced courses might be treated as second class academicians by their colleagues.

Teachers of the more advanced subject matter courses, on the other hand, not only would benefit from the requirement to regularly address the broader issues to which their specializations relate, but the nature of community college enrollments will usually require their availability for such course coverage. None of the centers' graduates should be jeopardized in terms of their occupational mobility by giving them only a "single track" preparation, and they thus should be prepared for teaching with either focus. The articulated community colleges also will no doubt insist that the centers' graduates should possess minimal competency in both these areas of concentration to permit flexible faculty assignments. Legitimate enrollment management problems make this necessary at times even when college administrators concur that their course coverage needs are best met through use of teachers with differing attributes and preferences in instructional emphasis.

Some degree of distinction in preparatory concentration is seen as valid, however. Community college administrators have expressed great interest in hiring more qualified teachers of better designed general studies courses to be offered their students enrolled in both the transfer and career occupational programs. Previous discussion has indicated the approach and emphases to be incorporated in these preparatory sequences in the centers. Such students' course and off-campus experiences would focus on a distinctive cluster of general education concerns, centered within one of the academic divisions but not restricted to its confines. While each student would major in a particular area of general studies, his total academic program should include conscious reference to other areas of general education as well. In addition, each such student should minor in a specific subject matter area. For example, the future teacher might major in human ecology, and minor in bio-chemistry.

Conversely, the community colleges require teachers who can present the more specialized courses in their transfer programs. There will be students entering the centers who will prefer to teach these more advanced courses. Such a student might major in political sociology, for instance, and minor in a cluster of general studies material related to "technology and the social order." Their more specialized preparation, in other words, could be structured along the cross-disciplinary lines previously discussed, in whatever manner the centers and their articulating community colleges agree is warranted and feasible.

In order to strengthen interactive contact and intellectual cross-stimulation between all of the centers' students and faculty, it is proposed that a regularly scheduled "Lecture Series in Community College Issues" be established. By bringing to the centers persons of outstanding reputation in educational affairs, moreover, the lecture series is a means of personally exposing and acquainting the students with the "best minds" in the field. Although the atmosphere and setting of these sessions should be informal, the selection of topics and discussion "referrants" should be anything but haphazard. Once brought to the centers' campuses, arrangements could be made to have these visitors stay over for additional days to participate in colloquia and workshops. The centers should insure this aspect of the program is "on target" with their students' concerns, and regard it not as an extra-curricular activity, but rather a way of better addressing aspects of the material to be covered in their professional preparation.

E. Multiple Entry and Exit Points

The objective of the proposed graduate centers is not uniformity of preparation but rather an attempt to allow individuals with a wide diversity of backgrounds to arrive at the requisite levels of competency and orientation. The actual content of the preparatory sequences also must take into account this variety of backgrounds that the prospective community college faculty candidates will bring to the program, as well as the broad range of teaching assignments they will be expected to handle upon completion of the program. It is further suggested that in order to meet the needs of the largest possible clientele, the centers should structure their program modules in such a way that they can be offered for both in-service and pre-service faculty preparatory purposes.

The centers' programs should thus incorporate current ladder and lattice concepts of progression which would allow students to enter at multiple levels. The amount of formal education possessed by the candidate, his ability to meet "challenge" examination standards, as well as the centers' evaluation of his pertinent work experience, would determine his entry point. The candidate's teaching objectives would determine his exit point. An individualized approach to student program construction will be essential to this approach.

The writer agrees with the thesis of the original proposal to the Office of Education that many advantages would result from the initiation of college teaching preparatory sequences as early as the third undergraduate year. It must be acknowledged, however, that many attractive candidates will not be prepared to make such a precise professional career decision so early. Consideration of that factor alone, as well as the enormity of the demand for new community college faculty which will be outlined later in the study, makes a master's degree program entry point necessary.

Moreover, faculty for the community college career occupational programs are generally recruited directly from "industry," where their competencies are often regarded as already standing in lieu of the subject matter learning given at the masters, not to mention the baccalaureate degree level. The centers, however, should assume responsibility for their further preparation for teaching-learning responsibilities. As prefigurative environments fostering an understanding of the spirit and full range of objectives of comprehensive community colleges, moreover, the centers also cannot afford to exclude career occupational program faculty trainees, and therefore must encourage their entry at appropriate levels.

Finally, by constructing doctoral level sequences animated by the goals and precepts heretofore discussed, these centers would better satisfy community college faculty needs for such preparation, than current Ph. D. programs. It would be unrealistic and call for an exclusivist attitude alien to their spirit, if the centers then barred admission to their doctoral programs to present and potential community college faculty who had obtained their masters degrees elsewhere.

F. Research Responsibilities

The sub-section will attempt to define the appropriate role of the proposed centers in research activities of their own, and for fostering competency in the conduct of research by their students. Very serious indictments have been made of the belief that doctoral dissertations as presently constituted should or need serve as research instruments whereby the student makes a significant, creative contribution to new knowledge. Articles and studies by Mary Engel, Hofstadter and Hardy, Charles Kidd, F. W. Ness and the American Psychological Association also question whether the dissertation has even proven to be a particularly effective means of fostering research competency. Their arguments will not be reviewed here because of the overwhelming weight of opinion that even if the doctoral dissertation achieved those ends satisfactorily, they are not in any case the kinds of skills needed by community college faculty. This would indicate a further justification for dropping the requirement of the typical research theses at any level of the proposed preparatory programs.

Although the writer recommends this step, it should not be interpreted as signifying a lack of concern for community college faculty competency in applied research principles and techniques. Understanding of the importance and use of the standards of definition, observation and evaluation intrinsic to research activity are indispensable to any educated person. College teachers generally attempt to convey in their courses a subtle combination of well established and newly discovered knowledges, which should be accompanied by an introduction of their students to the investigatory or research techniques upon which discriminations are made between valid and invalid, significant and insignificant knowledge.

Moreover, a type of research is involved in the organization of any course, and the preparation of instructional materials and evaluation instruments, particulary with the use of the learning strategy and objectives techniques heretofore recommended. In the light of earlier discussions, there can be no doubt that the community colleges must engage continuously in institutional research to develop improved instructional programs. There is need for the colleges and the proposed centers to serve as testing sites for new instrutional technologies and materials. Arthur Cohen notes that a community college "should be concerned with instructional forms--not with loud advertisement that its instructors are not researchers. As long as such a defensive viewpoint dominates, the rigorous examination of instruction itself and...the effects of instruction, will remain limited." He concludes that community colleges "must not only study instruction (but) must lead in the development of instructional theory."

As teaching institutions community colleges are fundamentally responsible for the causation of learning in their students. Yet we possess little systematic knowledge of why students learn, or the precise role of teachers and a variety of other factors in the learning process. It would seem logical that the persons most concerned with investigation in these areas, and well qualified to conduct some of it, are those directly engaged in the profession of teaching. Even prospective faculty might make a contribution, but by all means they should be familiar with the precepts, methodologies and literature of research aimed at improving college teaching in general, and in their field of academic concentration in particular.

If the centers themselves do not engage in research to improve their own programs, they will fail to invest their students with attitudes encouraging their incorporation of new approaches in the community colleges. Therefore, under the reasonable principle that the student learns by doing, it is recommended that participation in and conduct of some applied research of this nature should be a corporate part of the centers' activity and academic programs. With respect to the preparation of future faculty, attention to such research activity will be treated below as an organic aspect of the masters level program, particularly during the supervised professional internship. It will likewise be incorporated in the requirements for the doctoral level program.

Regarding the centers' own research activities, it might be noted that one of the benefits of their establishment would be their ability to relieve governmental community college coordinating offices of much of the responsibility for research and stimulation of quantitative improvements in these institutions. While the centers could hardly be unresponsive to such governmental agencies, their activity in this research area would offer a useful counterfoil to any excessive concentration of leadership imput from these offices. At the same time, controls should be built intc the governance of the centers to insure that they engage in instruction -related research and development activity jointly with their articulating community colleges. Cohen and Brawer have noted that "to be effectual in changing practices in education, research must be indigenous. University-based researchers can design studies and make recommendations; however, change directed to satisfying the peculiar needs of junior colleges must result from studies conducted within them."*

Despite the cited advantages and safeguards, the centers' leadership should not overlook the fears of many commentators that research preoccupations might become dominant in the community colleges and the proposed graduate institutions. There is some evidence that research projects are sometimes embarked upon in an effort to secure institutional or faculty aggrandizement. It will be necessary to guard against research activities becoming ends in themselves or otherwise eating away the time faculty must devote to other aspects of their teaching responsibilities. Consideration might be given to establishing standards for maximum proportions of total faculty time which would be devoted to research activities.

The writer, however, concurs with the purpose underlying a program recently launched by California's Orange Coast Junior College District. Since 1969, the staffs of the District's constituent colleges have been encouraged to apply for grant funds and partial leave time in which to engage in teaching-related research activity designed to improve student gain and instructional programs. Those directing the program express no fear that an instiutionalized distraction from the priority concern for student learning will result, since the grant applications are judged strictly on the basis of their potential contribution to that very goal. An additional point, previously made in the discussion on setting learning objectives, merits repeating since it underlines the relationship of research activity to faculty motivation and teaching quality. A commitment to systematic investigation of the learning processes and instructional presentation can play the functional role in community colleges and the proposed centers of stimulating faculty creativity, intellectual excitement, dedication and morale. The students would be the ultimate beneficiaries of all of this.

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*Care must also be taken that these research activities do not neglect the career programs in favor of exclusive attention to the traditional academic disciplines.

G. Improving Teaching Competency

Impatience with bad college teaching is widespread among students today. Trustees, legislators, parents and taxpayers, even professional organizations and learned societies are not only expressing more interest in teaching activity, but also demanding higher standards for its assessment. In Hegelian terms, the requirement for community colleges to provide good teaching may be of an order of magnitude where quantity indeed crosses over the threshold into quality. Community college faculties are not expected, as at many colleges and universities, to "also teach" in addition to other more explicitly important duties.

The improvement of teaching competency (whether one is referring to ways of better achieving learning objectives and desired behavioral change, or enhancing faculty performance itself) must surely concern the proposed graduate centers. Specifically, they must insure that their students acquire the attitudes, knowledge and skills necessary to teaching competency, as well as an understanding of the background environments and intellectual and personal growth needs of their own future students, and the purposes and sociology of the institutions in which they will work. The faculty trainees must master research, testing and learning process methodology. They must cultivate those attributes -- of enthusism, sophistication and skepticism -- which should both motivate their use, and facilitate discriminating appraisal of the educational strategies and techniques, technological processes, and hard and software available to their profession.

No dogmatic exemplar of Taylor's "one best way," exists or should be touted by the centers. Nor can the centers in purely didactic terms focus attention on even a multiple of approaches. The spirit of the previously proposed approach to strategy and technique posits more an attitudinal set and rather few dictums (student learning as the goal and bellwether of the educational process being one) with respect to the construction of academic programs. It is felt that any mechanical outlining of "rules of teaching" could cripple the growth of those faculty attitudes and demeanors sought. The various teaching-learning approaches should be viewed by the trainee as guidelines for use, review and consideration as he acquires maturity in his calling. In the proposed centers, where teaching responsibilities are emphasized, the aim should be to equip the trainee with knowledge of the better alternatives open to him, and the concepts and frames of reference within which he can select those best calculated in his judgement to work in his specific situation.

Moreover, whether teaching is an art or science, an unprofitable debate at best, it is most emphatically an applied vocation as contrasted with pure or theoretical activity. Proceeding from this point of view and the previous remarks, three approaches are proposed to foster teaching competency among faculty trainees:

1. The first was stated in the original project proposal to the Office of Education. It called for a "synthesis of substantive content and methodology, focused on the learning process," with no formal division between content and methodology courses. This first approach would appear only partly realizable. To that extent, however, it can be achieved in the prefigurative sense by insuring that the very presentation of the centers' academic material incorporates and delineates the learning for mastery strategies and techniques already discussed. This simple approach having been explained earlier, it will require no further elaboration.

2. The second would require the trainees to engage in responsible paid professional internships in settings that closely approximate normal teaching - learning situations. Since these internships would form part of the masters degree requirements, they will be discussed below in the context of that sequence in the centers' programs.

3. The last calls for the use of an instructional format in which the material is presented by an interdisciplinary team utilizing seminar, workshop and case study techniques, so as to avoid the dissective, dessicated quality of "how-to" methods course approaches.

1. Avoiding the "How-To" Syndrome

It would be unrealistic to propose that no formal course work will be needed by the centers' students to facilitate their comprehension and systematic examination and synthesis of pedagogic material. For instance, proficiency in preparing cogent learning objectives and related instructional programs has not come readily to practitioners of that technique. But in our concern for preparing teaching faculty, we must avoid returning full cycle to the "teacher college"type of enervating makework exercises.

One aspect of achieving this is to assign the responsibility for improving teacher competency to a divisional "interdisciplinary" team of specialists in the different pertinent fields (social and philosophical foundations of education, educational psychology and group work, instructional methodologists, etc.) They would be jointly responsible for the design and presentation of this portion of the centers' curriculum, and be represented on each trainees' individual faculty advisory board. Such an interdisciplinary organization of the material would parallel the similar approach discussed for presentation of the academic subject matter courses; it will require recruitment of a small group of intellectually compatible people who can cross-stimulate and work together; it should result in well-structured professional workshops attended by trainees regardless of their academic specialization.

The case-study, problem-solving approach used so effectively at the Harvard School of Business should constitute the major "modus operandi" for these professional workshops. The trainees should participate regularly in such workshops during the period when they are engaged in their professional internships, as a way of stimulating feedback between their on-the-job direct experiences, and the laboratory analysis quality of the case study approach. An introductory series of such workshops should be required of the centers' students during the initial year of the masters level program as well both to advance their competency and reinforce their commitment to the profession of college teaching. For those who enroll in the doctoral level work of the centers, the case study workshop approach is eminently suitable as a manner of addressing both their teaching competency and academic interdisciplinary interests.

Some guidelines for the case study workshops' focus can be derived from John Cashin's study of the opinions of present community college staff regarding useful emphases in teacher preparation. His survey indicated relative lack of interest in formal examinations of the functional and organizational characteristics of community colleges (e.g., their laws, regulations, administrative patterns, history, etc.) It was generally felt that not only would much of this be more properly learned on the job, but specific characteristics of this nature vary widely from place to place. The preference of those surveyed was for only a generalized examination of the functional characteristics of community colleges,with the greatest emphasis placed on their role as human institutions responsible for student learning.

No other formal courses need be scheduled, although the case study topics should be related to preparatory readings from a representative syllabus of materials. The suggested fields and major topics will be summarized in later sub-sections. In addition to the case studies, however, eminent visiting lecturers and outstanding teachers should be brought in by the centers on an occasional basis, as a supplemental means of focusing attention on salient theories, approaches and practical experiences important to the trainees' rounded preparation.

One additional approach is suggested which because of its relative expense might be dependent initially on non-regular governmental or foundation support. This would entail sending volunteer groups of trainees during normal vacation periods to a select group of academic institutions throughout the nation, which utilize particularly effective mixes of teaching-learning strategies, techniques and technological innovations. Such tours should be programmed to reinforce specific learning objectives, themselves incorporate structured case-study seminars with the staffs of these institutions, and require of each participant a reasonably substantial report on some aspect of the processes examined. Depending on experience with these tours, consideration could be given to funding them as a regular aspect of the centers' programs.

The above combination of case study workshops, independent readings, visiting outstanding lecturers and observational tours, would avoid a textbook, step-by-step explication of the theories and problems of college teaching. Instead, it would be problem-oriented, rely heavily on the independent initiative of the students, and leave open-ended for their decision some of the choices of topics for discussion. The writer cannot prove empirically the superiority of this approach to that followed in most existent teacher preparatory programs. Nevertheless, the latter are under constant criticism, while variations of the approach recommended have been highly praised where utilized in the business school setting, by both the students and their employers. Typical comments about the approach, in that setting, are that it stimulates student thinking, its products are creatively oriented, and they tend to advance faster and farther in their profession than those prepared in other manners. It is believed that similar results would be desirable, and could be obtained, in the community college faculty preparation setting as well.

Under no circumstances, however, should case studies, academic gaming, critiques of video tape performances, etc., be permitted to degenerate into entertainments. All too frequently these methods serve only as long-winded ways of bringing obvious issues up for discussion, and are not the imaginative stimulants to inquiry that their proponents imagine them to be. Certainly with respect to all elements in this aspect of the centers' curriculum, rejection of the triviality of typical teacher preparation programs cannot be commended unless they are replaced with a substantial alternative that properly enchances teacher competency, and can demonstrate results over the years.

H. Pre-Service Sequences

1. Beginning in the Junior Year

A distinctive feature postulated by the original proposal to the Office of Education for the new graduate centers was to coordinate the upper two years of under-graduate education with the masters degree level program. Such a coordination could apply only to prospective teachers of courses where the faculty's expertize in the subject matter field is not best obtained in industry or "on-the-job" itself. For such prospective faculty, however, several advantages would result from beginning their preparation in the junior year:

-Undergraduate and graduate level courses can be better articulated within a single institution, and the repetition of subject matter sequences that sometimes otherwise occurs can be eliminated, with a resultant saving in institutional resources and student time;

-Prospective faculty can be exposed much earlier to the strategies, techniques and subject matter orientation regarded as characteristic of their forthcoming teaching responsibilities; the sooner a student's own educational experiences can break away from traditional modes the better, since they have a way of becoming engraved in later teaching approaches; there would be less need for "unlearning" inappropriate objectives and teaching ;

-The process of internalization of the recommended precepts and techniques would begin at precisely that point when most undergraduates normally begin taking specialized course work related to their career objectives;

-The future teachers can at an earlier stage in their preparatory experience be exposed to the milieu of community college teaching careers, and thus have a better basis for decisions to continue towards such a goal;

-They will be exposed sooner to the different types of teaching concentrations (general education introductory courses or more advanced specialized courses), can make more informed selections of their individual future academic focus, and even have time to switch their concentration if their initial experience so dictates.

Writing in the Journal of Higher Education in behalf of an articulated undergraduate and graduate level program to prepare college teaching faculty, Oliver Carmichael noted that:

> The desirability of tying the last two years of college more closely to the graduate school is attested by the history of a number of universities which began with the expectation of having only the upper two years of college and a graduate school. Stanford, Vanderbilt, Johns Hopkins and Chicago are examples. They were forced to provide the first two undergraduate years, however, because the numbers applying for admission were insufficient to ensure economical operation. Now, with the rapid growth of junior colleges, the emphasis on the last two years of undergraduate and graduate work in the universities is increasing....As the junior colleges develop, the universities may be increasingly devoted to the upper two years of college, graduate studies and research. If this should happen..... (a) three-year Masters degree program...would be well suited to serve the (faculty) needs of higher education.

It had been noted previously that many ultimately attractive candidates for community college teaching careers would not be prepared to make such a long term occupational decision by the end of their sophomore year. While this is still believed to be the case, it also seems evident that many other students would be so motivated and eager for such an opportunity at that time. After all, community college students at present are confronted with the necessity of making some choice impinging on career objectives before their junior year. The availability of such a clearly well-focused educational ladder qualifying its graduates for a significant and productive career would conceivably be attractive not only to the abler community college graduates, but to many other undergraduates concerned about their roles and the contributions they would like to make to our society. A well conceived and appropriately publicized program would assist materially in the recruitment of such matriculants.

The students admitted to the program at this level should normally have completed all the usual general requirements in their first two undergraduate years. Each student's faculty advisory committee would be responsible for supervising the candidate's academic program choices, including selection of a field of concentration and major and minor subjects. This would be done within flexible guidelines established for the center as a whole by a Pre-College Teaching Committee whose function would be similar to that of the pre-medical committees which supervise the education of prospective doctors at the undergraduate level.

In addition to their formal course work, the students at this level would be encouraged to attend the lecture series by outstanding educational leaders previously discussed, and in general to participate in the collateral activities and ambient of a college faculty preparatory center. The semester hour components of the sixty credit undergraduate program could be composed of some 16 credits of required courses, a minimum of 21 credits in an undergraduate level interdisciplinary major, 9 credits in a minor, 6 credits for off-campus activity, with 8 credits available for electives. Some qualified students would be permitted to substitute graduate level courses in lieu of those in the undergraduate catalogue.

For purposes of illustration, these credit breakdowns in the social sciences, for instance, might look as follows:*

Three required courses (12 credits)

(a) Social Science and the Study of Man (junior year). This one semester three credit course should produce an enhanced awareness of the value and knowledge presuppositions of the various social sciences and their relationships to the humanistic and technological fields. Advantage should be taken of the greater maturity of students at this level, and the previous work they have taken in a variety of disciplines, to stretch their comprehension of the material. Greatest use should be made of prime source books and seminal ideas basic to the different fields. The courses should be broader than the usual socio-anthropological approach found in the freshman year courses of similar title.

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*The course number and credit specifications are not meant to be definitive; the faculties of the centers will probably find reasons to change them as they actually construct their curricula and courses. Moreover, the introduction of short course techniques discussed earlier in the paper is applicable at all levels of the educational process, and should be explored for possible use.

(b) Basic Scientific Method (junior year). A one semester three credit course providing fundamental logical and statistical skills that prevail in the social sciences. It should emphasize not just the tools, but the integrating concepts of mathematical reasoning and research design applicable to the problems likely to be confronted.

(c) Seminar in Interdisciplinary Analysis (ideally a six credit course meeting twice a month during both the junior and senior years). Designed to aid individual students to identify significant ideas and assumptions as they relate to their field of academic concentration and general college experience, giving them rank and priority and placing them in the context of historical perspective and contemporary usage. It should require of each student a self-study project where he could pull acquired skills and knowledge into a coherent package. The project could be based on reading and/or field experience and need not be in the medium of writing, although it usually will be. It could address itself to the type of socially oriented issues previously described, bringing to bear on them the insights and skills the student has acquired in his social science courses and the interdisciplinary seminars themselves. During the project's preparation the student would work individually with his professor, but he must then communicate the product of his work to his student colleagues for their response.

Seven Courses in an Undergraduate Social Science Major (21 credits)

The course combinations should focus on the individual student's concentration on either a general education introductory course emphasis, or a more advanced specialized course interest. Approval of the student's advisory board would be mandatory, with insistence that the student articulate the integrating principles upon which his choices rely so that a valid cross-disciplinary major emerges. Changes in concentration, minors or majors, should be permitted as the student's perception of his interests and abilities mature. Such changes could continue into, and be facilitated by the undergraduate level program.

Three Courses in an Undergraduate Social Science Minor (9 credits)

As previously discussed, the minor concentration should take a broad focus if the major is in a specialized area of study. For example,the minor might be in "Technology and the Social Order" and similar broadly directed courses if the major is in political science or political sociology, and vice versa.

Electives (12 credits)

These would be in additional fields of special interest to the student, or to make up those deficiencies in educational background which are not so serious as to preclude admission to the program.

Off-Campus Activity (6 credits)

In an earlier discussion, such activity was viewed as broadly enhancing the academic experience and affording strong reinforcement of interest in teaching careers when undertaken in human or public service areas. Its contribution to such objectives should be recognized by the granting of course credit. Evaluation of this activity should be made in terms of the benefits previously mentioned, and its contribution to the student's comprehension of a community college's responsibilities to its clientele.

The faculty advisory committees should insure that the mix of courses selected for the major, minor and electives in each individual's program encourages breadth of knowledge and affords perspective on the student's primary academic interests. For example, a science major should be cognizant of the impact and interaction between his field and the social sciences and the humanities The availability of electives built upon the cross-disciplinary and societal issue orientation lines advocated previously, would greatly facilitate fulfillment of this requirement. Divisional instead of departmental organization of the centers should further encourage a broad cross-disciplinary approach to the design of course content.

Graduates of the above program would receive the normal baccalaureute degree. If they choose for one or another reason not to continue on to the masters level program, they may exit and successfully seek employment in government or business or continue on to alternate professional or graduate schools. Their preparation would not be "lost" to them since many agencies and educational institutions prefer undergraduate education of this type. It would have provided a broad, general and practical background. The program's graduates would have acquired a significantly enhanced capacity for independent analysis, and the ability to generate realistic solutions to problems in their field of interest. Those continuing on to the centers' masters programs, however, would have been prepared specifically for more advanced work at their next level of academic and pedagogic preparation as community college faculty.

In discussing the feasibility of beginning at the junior year level, the writer found considerable interest engendered among the administrators of possible locuses explored for the establishment of the proposed centers. There was some opinion expressed, however, that some might prefer to begin activity at the masters level and only "work back" to the junior year level once sufficient experience and stability had been achieved for the initial program. There seems no reason to preclude such an approach, and every reason to accept a start-up at the masters level if local conditions make that more practical and acceptable.

2. Masters Level Program

The preparatory sequence at the masters level would consist of 32 semester credits the first year. The second year would comprise a supervised professional internship and other activities to strengthen the trainee's teaching competency, which will be described imdiately below. No separate masters level thesis or comprehensive examination would be required. The papers and preparations called for in the courses which will be outlined are directed to training the centers' students for teaching responsibilities at the undergraduate level, and are regarded as sufficient for that objective. The focus of the papers the trainees will be required to prepare, in addition, are more appropriate for their purpose than the research-type theses which are usually produced for the masters level degree.

A most important key to covering the necessary academic material in the first year of the masters program will be the centers' faculties ability to closely relate the upper division undergraduate course work with the subject matter courses offered at this level. Students entering the centers for the first time at the masters level, however, may find that some undergraduate sequence level material may be required of them during the preceding summer. This will be particularly true of material dealing with cross-disciplinary approaches to curriculum study, although the faculty advisory boards should make such determinations on an individual basis.

Following is a suggested breakdown of courses at the masters level, with illustrations once again drawn from the social sciences:

Five Required Courses (14 credits)

(a) Quantitative Techniques, Research Design and the Computer. A one semester three credit course in which the student is familiarized with the basic social science research techniques so he can understand their capacities and limitations.

(b) Methodology and Philosophy of Social Science. A one semester three credit course requiring the student to think through and prepare papers on the basic constructs of social science: theory, induction, verification, explanation, model, etc. (A text recommended and in use in a course of this nature at San Francisco State College is Abraham Kaplan's Conduct of Inquiry.)

(c) Continuing Professional Seminar in Interdisciplinary Course Analysis. A two credit course ideally meeting for two hours every two weeks throughout the academic year. It would bring together students in broadly related fields for discussion of their mutual subject matter concerns, and evaluation of their overall learning experience including the teaching to which they are exposed. During the second semester, each student would prepare for discussion and critique a proposed course outline for presentation of material in a basic area of his subject matter concentration.

(d) Community Experience and Analysis Practicum. A four credit experience consisting of three segments: intensive preparation in the manner by which an individual gets to know a community; personal involvement in a community situation,if possible by living within it; analysis and evaluation of the experience in both oral and written forms. The practicum partakes of some of the characteristics of off-campus experience. It should be spread over the entire first year of the masters level program and, where the student chooses, into the following summer as well. The latter option would most feasibly permit actual residence in the community studied, which is highly desirable. An interdisciplinary academic faculty team would supervise the practicum, which should meet formally once a week. The students may themselves choose to work in teams.

The practicum's objectives include: imparting the importance and some of the skills of community analysis (if the title "community"college is to be taken seriously, and their change agent responsibilities fostered, future teachers should be assisted in comprehending the societies they serve); strengthening understanding of community college student characteristics and needs, through appropriate selection of community issues studied; demonstrating the educational value of carefully planned off-campus experience; directing the student's evaluation and analysis of his experience under professional faculty supervision.

(e) Case Study Workshops on the Sociology of Community Colleges. A one semester two credit workshop held one evening a week on the objectives, characteristics and problems of community colleges. Each student would be responsible for preparing brief position papers on some proportion of the specific themes. The workshops would be coordinated by members of the previously discussed interdisciplinary division responsible for fostering teaching competency. These workshops would cover a more basic level of material than those scheduled during the subsequent internship year. The students would be assigned selected readings appropriate to each theme. Among the themes which could form the basis for construction of case study exercises are:

- Contemporary goals of U.S. higher education and community colleges.
- Profiles, objectives and values of community college students and consequent challenges to their faculties.
- Purposes and methodologies of adult (continuing) education.
- Characteristics and educational problems of the marginal student.
- College responsibilities in the cognitive and affective domains.
- An overview of modern teaching-learning strategies.
- Technological innovations in education today.
- Contemporary proposals for curriculum reform.

Six Elective Courses in the Social Sciences

(18 credits)

Faculty advisory committee approval would be mandatory for course combinations elected in the student's field of academic concentration. Both general introductory and specialized subject matter course emphasis appropriate to this level of graduate study should be represented in each students academic program. The basic courses in the student's field of disciplinary emphasis must be taken, e.g., micro and macro-economics in that field or social organization in sociology. As at the undergraduate level, each student would be expected to construct a cross-disciplinary mix of courses incorporating a clearly stated integrating theme or principle.

All of the academic work just outlined should be completed by the masters degree candidates prior to their assumption of internship responsibilities. It cannot be expected that they will be accepted and paid to teach courses by receiving colleges if they are not academically well prepared; unless they are well prepared, moreover, they will hardly constitute a good model for their community college students.

a. Supervised Professional Internships

Internships are not a panacea for the training of quality community college faculty. The practice has been in existence for some time, even at the community college level of education, with only mixed enthusiam evidenced for the products of existent programs. Community colleges have not employed intern program graduates in any significantly higher ratio over persons who have not undergone such training. (The writer's conclusion were derived from conversations with directors of such programs, community college administrators, and the AAJC senior staff.) Nevertheless, virtually every proposal examined for the improvement of community college faculty strongly advocates the incorporation of an internship component as a buttressing element in their training process. (Appendix A provides a list of existent and proposed programs analyzed in the course of this study).

The continuing confidence and hope placed in this preparatory instrument would appear to derive from the expectation that it can be fashioned into a rich educational experience. Internships need not be used perfunctorily merely to place candidates in job situations with the expectation that improved teaching competency will somehow be absorbed by the candidates via osmosis. The experience can and must be closely evaluated by and for the future faculty member as a basic for meaningful improvement in his subsequent teaching activity. More productive internships would therefore require very careful planning and elaboration. The internships should constitute the summation of the teaching-learning process material offered by the centers at the masters level. It is through this preparatory instrumentthat the bond should be forged between theory and practice for the faculty trainees. The detailed recommendations which follow attempt to meet the above noted criteria, and were derived from a close examination of existent and proposed internship programs.

1) Build the internship around a regular academic year in a nearby articulating high quality community college. The centers and the employer community colleges should accept joint responsibility for insuring the success of the internship aspect of the pro-

gram. Specifically, the community college should be broadly involved in building and supervising the intern's program.

In the past, the problems encountered did not include outright rejection of the intership concept, but a lack of commitment by host institutions to a fully productive experience. The California CCHE staff report surveyed many teacher preparation programs. In citing a January 1967 study by the Center for Research on Learning and Teaching at the University of Michigan, it noted a decidedly unsatisfactory state of affairs. The Center's study of college teacher training programs found that of the 42 institutions surveyed having internship components, nearly all were departmentally focused, with virtually all training exclusively controlled by departmental personnel. It noted two other factors as delimiting the success of these programs: a) 43 percent mentioned a lack of faculty interest in the training-supervision role; and b) a shortage of personnel assigned to carry out training functions. The centers should exercise the prerogative of not approving any institution for internships where such conditions prevail.

2) It will enhance the program when the articulating community colleges can take a sufficient number of interns to justify employing an intern program coordinator (perhaps one of the master teachers, wearing a different hat). His functions would include orienting the intern to the college; clarifying administrative matters; exposing the intern to special aspects of the institution's own program, including educational goals, teaching-learning strategies, activities and curricula offered; and fostering maximum con-

tact with the total college community. The internships should begin in the fall semester or quarter to permit participation in the college's regular faculty orientation sessions, which are normally held at that time. These coordinators, or in their absence another senior academic administrator, should annually apprise the centers of the intern program's value to their institution, give suggestions for its improvement, etc. In general, it should be the coordinator's responsibility that a well structured experience utilizing the full human and facilities resources of the college, has been made available to the intern to enhance his transition from student to faculty status.

3) At the masters level, the internship should take place at the termination of most other studies; at the doctoral level, prior to the more advanced work offered, except where previous teaching experience is assessed as fulfilling the internship requirement altogether. Placing the internship at the termination of the masters level academic program helps ensure that sufficient preparation has occured before requiring classroom exposure. This will reduce the excessive burdens on the intern which would otherwise occur in the preparation of his course programs and classroom presentations; it also will lessen the possibility that the community college students will be exposed to insufficiently prepared instructors.

4) Prior to the commencement of the academic year, bring all of a center's interns together for an intensive, pre-service weekend briefing institute. At this time, the center's staff should explain the objectives of each type of activity in which the interns will engage, describe the required reporting procedures and forms,

and answer questions. If possible, the mentors under whom the interns will work should be present to enhance the spirit of the internships as a shared educational endeavor.

5) Conceive the internship as an in-depth immersion into the responsibilities of community college faculty. It should be directed to increasing teaching competency and engendering further interest in the teaching-learning process. The intern can accomplish this through practical manipulation of models (practice systems to try out under supervision), and with self-auditing by means of videotape, supplemented by mentor and peer comment, directed towards improving the future faculty member's natural endowments.

6) Give each intern full responsibility for teaching only two sections of one course per week. This limitation is intended to permit time for participation in case study workshops and small group seminars back at the center, as well as time to prepare, observe, confer, research and engage in collateral activity in the community college to which the intern is assigned. As a practical laboratory experience in teaching, responsibility for two sections can serve as well as a full course load. Sheer time in classroom teaching will not serve the purpose; as faculty the interns will have more than enough of that. Other occasional teaching responsibilities can and should be undertaken with the mentor's approval, including responsibility for leading discussion sessions, some lecturing, and assisting in the preparation of learning objectives and related program material and examinations, both formative and evaluative. The intern should never be assigned to handle only laboratory sections, since this would not constitute full course responsibility.

7) The internship should be regarded as an intrinsic part of the faculty trainee's academic preparation. The intern's discharge of teaching responsibilities will require substantive preparation and learning in academic areas, in addition to familiarization with teaching-learning and administrative processes. It is suggested, therefore, that the intern's satisfactory performance of activities in an articulated community college be assigned 18 degree credits. With similar justification their work in the case study workshops and small group seminars could be awarded six credits each. In all, a total of 30 academic credits would be earned during the internship year.

8) The case study workshops, programmed once a week during the internship period, should be directed by the centers' faculties on their own campuses. Similar in format and focus to those held during the first year of masters level preparation, they should delve still further into community college problems and responsibilities, and teaching-learning theory and processes. They should reflect the intern's current deep involvement in the practical mileau of their profession. Among the suggested themes around which case study exercises could be formulated are:

a. Changing philosophies and challenges in higher education.
b. Problems of the open-door, comprehensive community college.
c. Problems of new teachers.
d. Practical applications of selected learning strategies.
e. Writing affective and cognitive learning objectives.
f. Special problems of curriculum construction in selected fields.
g. Educational research techniques and their appropriate use.
h. Purposes and limitations of student and teacher evaluations.
i. Purposes and abuses of testing and grading approaches.
j. Methods of organizing instruction; use of instructional techniques.

k. Issues in the delivery of student personnel, counseling and guidance services.
l. Discharging responsibilities to the community supporting the college.
m. Student demographic and education profiles, and special learning problems of different students.
n. Consequences for teachers of diverse student personalities and expectations.
o. Some proposed models for curriculum reform.
p. Administrative, legal and financial obligations and constraints as they effect community college operations.
q. Student and faculty roles in academic governance and the setting of institutional standards.

9) The interns should be required to attend small group discussion seminars one evening per week. These should be coordinated by and held at the centers, and attended by the interns' mentors on a rotating basis. In these sessions, situations should be created in which the prospective teacher examines his own experience, learning and values. They should strike a balance between the benefits deriving from structuring the material to be covered, and those resulting from discussions of a "skull busting" nature. The latter are useful, but care must be taken that they do not become mere complaint or "philosophizing" sessions. On the other hand, limiting interns to only asking questions as a way of avoiding this, as has been tried in one program, is abhorrent and self-defeating. Informality in their conduct (i.e., lounge, buffet supper get-togethers rather than normal classroom settings) would probably better encourage the desirable free exchange of ideas. Interns should chair most of these meetings.

These seminars should proceed from the realization that much bad teaching is the result of faculty non-recognition as to how students are affected by different teaching styles. Relaxed "rapping" with their peers centered about video tapes of selected classroom performances should therefore take place. While these evaluations may not change a sarcastic style, for instance, at least the intern will be forced to think about such matters. At the same time, they will afford opportunity to exchange information on strategies and techniques, subject matter organization, and technologies utilized. Finally, these sessions should be used by the interns to seriously consider and discuss the intellectual questions and other concerns currently being raised by their students, and to explore ways to respond to them.

10) On the voluntary basis previously discussed, the interns should be offered the opportunity to participate in group process sessions. Conduct of such sessions during the course of an extended weekend has been found satisfactory.

11) Each intern's program and activity should be supervised by a mentor in his own field of academic specialization from the regular staff of the employing college. Because a well-developed program will afford beneficial in-service experience to the mentor as well, he should be relieved of responsibility for one course section for each two interns supervised. This might well be the course section taken over by an intern, provided he is treated not as a mere assistant, but the teacher primarily responsible for its direction. Such de facto full responsibility (even if it cannot be legal responsibility because of the laws of some states), together with strong support and guidance from the mentor, should encourage optimal individual growth.

12) The mentors should be volunteers, selected from among the experienced, active staff of the articulating college, with manifest interest in teacher development and exceptional instructional

abilities. Candidates should be presented by the community colleges to the centers for approval well in advance of their appointment; a mechanism should be established by the centers for review and approval of these applications. The mentor approach should not foster a return to the medieval concept of acolytes attending upon an academic priesthood. The college as a whole should share in the responsibility for supervision, with the mentor functioning as "prima inter pares" and team leader.

13) Prior to the start of the semester, the mentor should assist the intern in planning his instructional program and establishing learning objectives, developing course materials, etc. In addition, he should advise on, approve and coordinate the collateral activities in which the intern will engage at the community college. These latter should consist of:

a) Fifteen class hours per semester of observation of other teachers including: a course of the mentor's in the intern's own academic field; courses in related academic fields; at least one course in the community college's transfer, career occupational, developmental and continuing education programs. The latter is particularly important as part of the effort which should be made to break down dichotomies between night and day school activity. Each observational visit should incorporate post-visit discussion with the faculty member observed.

b) Student personnel services orientation: one half day every two weeks observing, and participating at the discretion of that staff, in the gamut of registration, admissions, couseling, placement, financial aid, and student activities responsibilities. All interns should engage in some amount of supervised individual student couseling activity.

c) Learning resource, instructional services orientation: a similar half day every two weeks should be spent with these staffs and facilities.

d) Developmental and community services program orientation: a similar half day every other week should be spent with each of these staffs.

e) Career occupational program orientation - the academic dean should assign specialist in such programs to arrange at least one special evening session per semester for all interns at the college for specific briefing on its characteristics, problems and challenges. In addition, all interns should make a minimum of two visits to typical local industries hiring graduates of these programs, with those planning to teach in them, perhaps more.

f) Governance and administrative orientation - attendance at a minimum of one meeting of each of the following groups: board of trustees, faculty professional and/or employee organization, president's administrative council, professional standards committee, a career program curriculum advisory committee. Also, as many meetings as possible of the academic or faculty senate and the divisional chairmen's group and faculty in the intern's disciplinary field. It will be preferable to permit the intern to skip some of these, than enforce mechanical requirements to "put in an appearance."

The interns should maintain a log on these collateral activities, incorporating their impressions and perceived intellectual and professional growth as part of a process of self actualization. These logs should be made available to advisory boards and mentors for diagnostic purposes.

14) Provide adequate space for the interns to hold regular office hours in a professional manner with their own students.

15) The supervision of the trainee should include both the mentor's passive availability where the initiative is taken by the intern, as well as his in-class observation visits. These latter should take place three times per semester, as a lesser number would be insufficient for evaluation and pacing of the intern's progress.

16) Require of the mentor four evaluation reports over the course of the academic year, which should specifically comment on the intern's success in effecting student learning. These reports also should discuss perceived strengths and weaknesses of the intern, and be prepared as if they were addressed to future employers. They should *not* be so utilized, although a final summary recommendation could bring the record up to date and be entered in the intern's placement file.

17) Insure that a member of the intern's center advisory board meets on two or three occasions during the academic year with the mentor. The purpose of these visits would be to obtain progress reports, afford opportunity to observe the intern in action, and to discuss jointly any prescriptions for improved intern performance based on the mentor's suggestions. If the intern's lack of progress so indicates, more frequent visits should be scheduled. At least the first such advisory board observation should be diagnostic in intent. Evaluative devices should be employed like the previously mentioned "Climate Index" and "Social Substantive Scale," supplemented by video tapes of intern performance and questionnaires to be developed by the centers. The advisory board should prepare one interim and one final progress evaluation report, which should be available to the intern and his mentor. The final report would incorporate the advisory board's recommendation on acceptance of the internship experience as partial fulfillment of requirements for the appropriate degree.

18) All reports, by the intern's advisory board and his mentor, should be discussed openly and frankly with him.

19) The interns should be paid by the employing community college at a one-fifth rate of a beginning instructor's salary for each section they fully direct. This should be supplemented by a stipend from one or another governmental agency channeled through the centers. Because of the commitment on the part of the host community college it represents, paid internships would draw the future teacher more effectively into the full intellectual and organizational activity of the institution. For the intern, reasonable compensation is a signification of the seriousness of his duties, and will often be indispensable for those with family responsibilities.

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For purposes of illustration, following are the implications of these cost factors for the employing colleges and the interns: A mentor supervising two interns would be relieved from teaching one section per semester, or 1/5 of a normal community college teacher's classroom responsibility. Estimating the average salary of a senior faculty member at $15,000 a year, the college in effect contributes $3000 of staff time towards two interns' training. The four fifths of a beginning instructor's salary paid to the two interns for covering four sections per semester is the minimal amount it would normally cost for such coverage, and represents no extra expense to the college. The writer's discussions with several community college presidents indicates they would not regard the above $3000 staff time contribution as excessive, particularly as it represents an investment in possible future faculty members, and the interns' presence would be stimulative to the institution as a whole.

For each intern, coverage of two sections per semester would be compensated by a yearly salary of approximately $3200 (estimated at 2/5ths of a beginning instructors salary of $8000 a year . A supplementary stipend program offering from $800 - $2000 per year, depending on need, would result in an attractive financial recompense to the intern. It should be possible to demonstrate to federal and state authorities the value to a strong community college system of a sound internship program. A relatively modest student supplementary financial support program would make it justifiable to require future teaching faculty to elect internship experience. (Figuring 50 - 100 interns at $1400 average stipend, would call for only $70 - $140,000 per year for the stipend program at each center.)

The writer cannot answer in a vacuum the question whether community college faculty candidates will elect the proposed intensive two year masters degree program, when they can be hired at the same rank and salary upon completion of less rigorous programs. Obviously, unless other measures are taken, only the most dedicated and conscientious will, and then only if it is within their financial capabilities. The first problem for the community college movement, therefore, once it asserts its need for a faculty oriented and trained for teaching responsibilities, is to insure that a proper preparatory program exists and that it incorporates equitable and sufficient student financial support elements. Given the existence of those requisites, community college administrators can then in good conscience insist that their faculty candidates possess such preparatory credentials, and indeed should give them preference in making appointments to their staffs. An incentive to the students to enter such a program would occur if the colleges also recognized the internship year credits for purposes of granting higher academic rank and/or incremental step placement.

3. The Doctoral Program

The purpose in offering a doctoral degree in the new graduate centers would be to make available a more appropriate balance of materials for the further preparation of college teachers than is presently incorporated in Ph.D. programs. Attention would be given to a better mix of such elements as the candidate's subject matter proficiency or scholarship, his teaching-learning process competency, and his skills in the use of applied research techniques pertinent to teaching duties. It is believed that a doctoral program in the centers would fill a discernible need and its validity should not be obscured by irrelevant considerations of prestige, tradition or prerogatives historically granted to existent graduate schools.

Many have questioned the need for a doctorate for teaching in the community colleges. Several points can be made in response. Beginning with the least substantive, the doctoral designation performs a function as a certification of higher educational attainment, a matter which interests a significant portion of community college administrators and faculties. The doctoral title certainly has a semantical advantage over the masters because of the greater prestige society attaches to it. The status of the doctoral degree is a probably persistent fact, and its drawing power is such that a rich store of educational talent will be found among its candidates. Finally, salary scales in some colleges provide higher pay for holders of such degrees. Therefore, a practical even if not a fundamental justification can be made for a doctoral level program in the centers. These attitudes and practices exist, whatever one's judgment of them, and many community colleges will demand and hire persons who hold a doctorate. The centers could at least offer a program more appropriate to community college needs.

More importantly, it can be asked whether one would assign all responsibilities for lower division undergraduate education (the design of curriculum, the setting of standards of proficiency, and the choice of instructional materials in addition to classroom teaching duties) to a group of persons none of whom were educated beyond the masters level. Is not some leavening needed through incorporation of a minimal number of persons possessing the perspective acquired from the additional preparation represented by a doctoral degree? The broadly focussed and relatively advanced bodies of knowledge and skills which some portion of the community college faculty should possess will require a substantial period of training beyond what is encompassed in the masters program outlined in the previous section.

Finally, it is a matter of record that a very high proportion of community college teachers continue to pursue subject matter course work beyond the masters degree level. While part of this continued study is no doubt a response to college reward systems, a good deal of it reflects genuine interest in their field, profession and intellectual growth. The fact that many community college faculty associations (e.g., the NFACJC and its California affiliate) are calling for a relevant doctorate cannot be attributed solely to interest in the prestige of that level of degree. Above all else, they have given thoughtful attention to the content of such programs. Since their members are hardly interested in graduate school time - serving, it may be presumed that their experience indicates the need for additional substantive and intellectual preparation for some of their number.

In fact, there has been a recent concatenation of demands for such a program. There is considerable evidence that we are entering an era in which alternatives to the traditional Ph.D. will be more widely used and, as importantly, more widely respected. These initiatives are highlighted by the actions of the Council of Graduate Schools (CGS) in the past few years. That organization's Executive Committee has declared that: "Preparation at the doctoral level for a career in the practice of undergraduate college teaching ... may be recognized by the award of the degree Doctor of Arts." It has appointed a Committee on Preparation of College Teachers to develop guidelines for such a doctoral program to train graduate students "for a lifetime of creative and meaningful teaching at the college level."

Support for the concept of a Doctor of Arts degree to prepare college teachers was enunciated as early as 1965 in the Muscatine Committee Report, which noted that the "research paradigm" has dominated graduate education despite the low proportion of actual research scholars produced. The Report asserted that "the extreme demand for college teachers cannot be met by the present form of doctoral training except at the cost of diluting its quality." It questioned the practice of making the Ph.D. "the only acceptable form of certification for college teaching." Because of its fears of a "continued devaluation" of the Ph.D., the Report then recommended the Doctor of Arts for "serious students wishing to make a career in college teaching."

The writer believes that the case for a doctoral level program has been established; the expressions of opinion cited are only a representative sampling of a trend that is definitely building a head of steam. The Doctor of Arts title as the designation for the highest degree to be offered by the centers also appears a politic as well as a viable choice.

However, why not be done with all the fussing and call the terminal program a Ph.D. as Antioch President James Dixon has suggested to this writer? This would certainly carry the prestige which some feel will be necessary to attract person of the highest promise and intelligence to college teaching. No holy writ enjoins that the Ph.D. be employed solely as "the mark of highest achievement in preparation for creative scholarship and research to use the CGS's phrase. The Ph.D. title need not forever be locked into the neo-German model of one hundred years ago. Indeed, examination of the actual content and requirements for the Ph.D. between different institutions and even between departments within the same institution, indicates little consistency at the present time. More than one configuration of components obviously can justify its award. The one with which this study is concerned should be neither a facile modification or transformation of any other doctoral sequence, but instead an organically conceived, self-sufficent, unique and terminal program in its own right.

At a December 1969 meeting of the CGS, in fact, two graduate school deans called upon their colleagues to devote more of their resources to preparing college teachers in Ph.D programs. As reported by Ian McNett in the Chronical of Higher Education, Brown University's Michael J. Brennan decried the existent situation whereby the graduate schools offer "only one track to all comers regardless of their diversity of interests, talents or motivations." He characterized as a "myth" the defense of a one-track research training orientation as valuable to college teachers, whether or not they engage in such activity. He and Herbert Weisinger, his Stony Brook (SUNY) counterpart, cited the need for college teachers arising from the "spectacular growth of the two and four-year colleges." They called explicitly for a two-track Ph.D. system, and discounted fears that this would debase that degree. Brennan noted that by restricting the Ph.D. to prospective research experts and university teacher-scholars," the present trend toward more relaxed standards and multi-purpose functions would be constrained." Weisinger asserted that "the Ph.D. with emphasis on teaching is an honorable and useful degree."

In concurrence with the points just cited, the writer recommends that the centers make every effort to gain acceptance of the right of the graduates of their doctoral level sequence to receive the Doctor of Philosophy. Achievement of this authority would constitute a most significant further step forward in gaining long overdue recognition for the importance of teaching to collegiate institutions, their students, faculties, and the public at large.

To turn to a discussion of the content of the doctoral level program, it must first be recognized that in all likelihood the new centers will not launch courses at this level immediately. It is indeed recommended that they not undertake such a program until experience is gained through the conduct of the masters degree sequence, so as to give guidance on the appropriate focus of material at this highest level. For this reason, only the most minimal guidelines will be set forth in this study for the doctoral program.

It should likewise be acknowledged that the doctoral degree will be pursued by most candidates while they are on the job, generally as full time college teachers. This means that for doctoral candidates lacking the internship or its equivalent, that portion of their college teaching preparatory experience should be completed before beginning the course work and other requirements. No special financial stipend arrangements are regarded as necessary for this latter aspect of the doctoral program.*

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*On the other hand, pursuit of the doctoral program could be tied in to sabbatical leaves, which would permit full-time attendance for at least 6 months, possibly 1 year, after substantial employment experience. In the event of half pay for a one year sabbatical, some stipend might be called for from the candidate's employing college. Candidates for the doctoral degree from the staffs of the articulating community colleges could, however, gear their programs to some extent to the needs of their employing (and perhaps financially sponsoring) institutions. A senior member of the articulated college's staff could serve as a member of the candidate's doctoral advisory board, participating in the oral examinations, noting strengths and weaknesses that have emerged in the discharge of teaching responsibilities, etc.

Moreover, this in-service, on the job pursuit of a doctoral degree is not necessarily a disadvantage, provided the requirements are not so onerous that candidates could not complete them in a reasonable time span. It would provide feedback between the candidate's studies and practical teaching duties. It should even be considered whether the holder of any masters degree ought to be admitted to the doctoral program until he had some extended experience in classroom, course and curriculum presentation. The greater maturity and awareness of real life teaching and subject matter problems resulting from such experience would enrichen the candidates' doctoral studies, and argues in favor of such an admissions criterion. It recognizes the value of experience to this particular learning process (i.e., becoming a progressively more qualified college teacher), and builds a time sequence into the doctoral preparatory process not dissimilar in intent from the "years of experience" requirements of most college faculty advancement policies.

The doctoral degree should require an additional thirty course credits beyond the masters, plus satisfactory passage of oral examinations conducted under the centers' auspices, and completion of an applied research thesis or practical investigatory project. The courses should be substantially interdisciplinary in focus, bridging subject matter areas and at least examining approaches of the multi, cross and pandisciplinary types discussed. Each candidate by this point in his studies should have attempted a sufficient immersion in at least two and not more than three disciplines so that he can internalize to a substantial degree their way of viewing the world. The content level of the courses should be such that they are comparable in conceptual complexity, although not usually in narrowness of specialization, to those offered in other Ph.D. programs. Each candidate's individual program, of course, must be fully approved by his faculty advisory board on the basis of his defense of its integrating principles.

The only required courses recommended in the subject matter area, again drawing upon an illustration from the field of social sciences, is a six credit two semester seminar on problems in the organization of knowledge and design of curricula. The first, "Patterns of Interdisciplinary Social Science," would consist of a colloquium at a high university level on the kinds of thinking involved in the variety of approaches to interdisciplinary study. The student would be asked to evaluate the works of individual thinkers in the light of these perspectives. The aim should be that the student acquires greater conceptual clarity and critical facility, which can be applied to future reading, thinking, research, teaching and leadership activities in his college.

The second semester of the seminar, "Changing Patterns in Curriculum," would be taken by all candidates regardless of their field of academic concentration. Students would consider such themes, arguments and questions as were raised in the introductory portion of the section of this study on "reorganization of the curriculum." The seminar would seek to develop the candidates' personal positions on the issues of continuity and change in curriculum reform.

With respect to the thesis or practical investigatory project, there should be flexibility in the types of activity permitted to fulfill this requirement: it might consist of the candidate's design of an academic sequence in his field of concentration; or an applied research project to develop a teaching strategy to impart certain curriculum materials, which would be tested in an actual classroom situation; or an expository study of relatively modest length in which the student gives a clear and well-organized presentation on a significant subject matter problem, theme or idea. The thesis or project should be submitted as a written report and defended before a duly constituted doctoral board. It should be normally possible to complete the work entailed within a half year.

In addition to the above thesis, no work should be required in courses related to teaching competency issues other than a one semester three credit case study workshop. The problems examined at this level should be of the macro variety and encompass the broadest issues of teaching-learning strategy, and college responsibilities, purposes and programs. The doctoral candidates should be invited to participate in the lecture series, group process sessions, and other general activities of the centers.

I. Additional Functions of the Centers

While the most important function of the proposed centers would be the pre-service preparation of teaching faculty, there are additional services they can and should offer their articulating community colleges.

1. Inservice Sequences

One cannot expect that the centers, especially in their initial years, will be capable of preparing in their pre-service sequences all of the faculty needed by their articulating community colleges to "make a difference" in their functioning and quality. Because these institutions are already predominantly staffed by teachers with little or no experience in comprehensive community colleges, plus the fact that their character and responsibilities are in a state of flux, suggests that even present faculty could benefit from the availability of continuous in-service educational sequences at the centers.

In addition, the centers' pre-service graduates will be "strangled" in their attempts to achieve change unless a sufficient number of their faculty colleagues share to some degree their philosophy and skills. An earlier chapter on the proposed pedagogic concerns of the centers and their articulating community colleges called for approaches which are substantially different from most current practice. This would indicate that their graduates will be confronted with institutional reservations and faculty resistance towards the approaches they hopefully will have internalized in their training in the centers. If the centers believe in the validity of their approach, and really seek to effect change in community college activity, then it is evident that reliance solely on the imputs of the most junior faculty will be both unrealistic and insufficient.

Further argument for the centers' involvement in inservice education can be found in the literature dealing with the community college movement, which constantly reiterates the need for professional refreshment and fuller opportunities for continuing growth on the part of all faculty. The experience of the AAJC's New Institutions Project, moreover, indicates that many of the objectives of such inservice educational sequences will fall in the affective domain.* This finding was viewed by the AAJC as arguing for an off-campus environment for inservice programs "that encouraged interaction in both formal and informal settings, included small and large group discussions, provided sufficient time to consider, weigh and reconsider, and presented authorities who strongly support and believe in the objectives of community colleges."

In addition, with respect to current inservice programs on community college campuses, Garrison's interviewees "typically... criticized these as haphazard, 'off-the-cuff' and, 'a bunch of people getting together fairly regularly to pool their ignorance.' When asked for suggested remedies for this situation, most of them felt that the help of expert outside consultants working with special faculty groups to plan inservice programs, was a good solution."

The writer believes that the proximity of the centers to their articulating community colleges and other measures which will be outlined to promote interaction, the availability of professional faculty training staff and resources, and their ability to provide an "off-campus" learning setting for inservice program participants, would make them an eminently suitable locus for the achievement of the objectives just alluded to. Both credit and non-credit course sequences could be made available. They could offer successive refresher courses not only for faculty, but also for administrators and trustees of the articulating colleges. They could address the heretofore largely neglected requirement for non-credit conferences and workshops for administrators at the important middle management level (associate and assistant deans, directors, division and department chairmen). These latter inservice sequences are gravely needed only in part as a consequence of the rapid promotion of persons to fill the numerous vacancies in fast growing institutions. College presidents are also finding it necessary to assign considerable managerial responsibility to such administrative staff due to the increasing complexity of their programs and services, and recent developments in faculty negotiations, student militancy, and the growing formalization of organizational structures and procedures. These middle level administrators could benefit from a directed examination of the nature of their responsibilities, and methods for coping with them.

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*Comments drawn from an internal, undated AAJC report, "Anatomy of a Workshop for Inservice Education Personnel," prepared by the New Institutions Project Director, Richard E. Wilson.

Finally, since considerable inservice training responsibility should remain on the local college campuses, the centers could work with those persons directly charged with planning and implementing their programs. Among the matters of specific concern to these personnel will be theories of change and diffusion of innovational approaches, guidelines on the organization and presentation of inservice training programs, and current ideas and developments in curriculum and instruction.

The substance of all inservice sequences should reflect the specific identifiable needs of the articulating community colleges. In all likelihood these will include attention to trends in the broad area of community college responsibilities; recent thinking on ways to facilitate student learning; reconsideration by the participants of their approach to such matters as curriculum organization, college governance and community service activity; and efforts to upgrade and stay abreast of developments in subject matter fields.

The centers' inservice sequences should not be viewed as mere extensions of their enrollees' graduate studies (even where courses are taken for credit for degree purposes). They should serve as a modification of the working conditions of employed faculty, providing a setting for systematic review and suggestions for improving their present performances. There is no justification for conducting inservice programs at the centers if they only afford a simple orientation to the purposes and programs of comprehensive community colleges. Garrison's interviewees also were emphatic that there is need for "real quality in any inservice offerings. 'None of this half-baked, casual stuff,' said one. 'I've experienced those, and they're worse than nothing. People get their hopes up, suffer through a couple of perfunctory sessions, and drift away.'" The professional level of the centers' overall activity with regard to curricular and teaching competency issues, as well as the pressure which the articulating community colleges can exert, should work to insure that their inservice sequences are indeed qualitative and precisely targeted programs.

2. Career Occupational Program Considerations

Perhaps the most significant inservice activity of the centers will lie in their offerings for career occupational faculty. Attention to the special preparatory needs and institutional status and relationships of these teachers is important if the centers are to make any significant contribution to the better integration of such personnel on the community college campuses. The writer's own experience with the movement has underlined the need to develop a greater mutuality of pedagogic objectives and approaches between the faculty in the career and transfer programs. Community college leadership with whom the matter was discussed agreed unanimously that solutions to this problem are mandatory. The centers should consciously incorporate a philosophy and, to the extent possible, programs designed to break down such false dichotomies as exist between the general education, career and transfer program responsibilities of comprehensive community colleges. All faculty should be prepared to recognize the importance of general studies to open-ended career development for the total student body, as well as the utility of fostering a career consciousness in every student.

Community college faculty should be cognizant of the fact that an occupational goal underlies the liberal arts and sciences sequences of the students enrolled in the transfer programs, as well as those specialized sequences in the career programs. Marvin Feldman's earlier cited statement noted that "an educational system that fences off the vocational aspect of life in a compartment called vocational education, separate from the mainstream... is an anomaly, if not a fantasy."

In reality, the career and transfer programs represent different points on a spectrum: neither "vocational training" nor "liberal education" is as desirable alone as they are in meaningful combination with one another.

Yet a dichotomy often does exist in current practice, primarily because of the attitudes of students, faculty, administration and parents which perpetuate the schism and become reflected in campus and building layouts, curriculum and organizational structure. Frequently "vocational" faculty and students are not encouraged to think of themselves as first-class citizens who should interact at a level of equality with their "academic" counterparts.

Few college students have no vocational or professional aspirations, however cloudy they may be at a given moment. Few persons seek to earn degrees at any level without any consideration of occupational consequences. While one would most definitely not assert that there are no intrinsic intellectual satisfactions to be derived from college courses, it is felt that they are frequently exaggerated by academic elitists. Conversely, any good career occupational program can and should possess satisfying intellectual and aesthetic attributes. An electronics technician may find beauty in calculus, for example, a forester in trees, a physicist in spectroscopy, a nurse in physiology, or an automotive technician in the shape and motion of a crankshaft. Still further, should not all of the above students be encouraged to read Aristotle, ponder on the cultural influence of the Moors in Spain or the African Americans in the United States? Should not all collegiate programs strive to promote successively higher integrations of the individual with his physical, social and cultural environments? Should not every student be encouraged to think and speak and write in relationship to his universe, however conceived?

In order for a community college to offer programs reflecting all such goals, which will contribute to their students' personal growth and occupational preparation, it would follow that its faculty should pursue a preparatory experience which incorporates material emphasizing both of these concerns. Ideally, therefore, the proposed centers should provide an integrated faculty preparatory setting encouraging communication and understanding between future career as well as transfer program faculty. Scuh a preparatory process would seek to have carryover effects on the atmosphere in the comprehensive community colleges in which the centers' graduates will work.

The promotion of positive interaction and healthy, mutually respecting attitudes among these future teachers cannot, of course, be effected merely by housing them under the same campus roof. All too many ostensibly comprehensive community colleges provide merely superficial contact between their different faculty and student groups. Indeed, the student center, cafeteria and library/learning resources center may actually promote the same negative interaction which Feldman has observed exists in most high schools, with their "three sociologically and educationally discrete schools -- academic, vocational and 'general'." To assure a shared experience, he notes, the curriculum "would be a far more natural common ground."

In a certain sense, one such common ground is implicit in this study's previous emphasis on the importance of off-campus work-study experience for all students. Another is embedded in the discussion on reorganization of the curriculum. The study has recommended adoption of Wiegman's proposal for restructuring the organizational patterns of community colleges by establishing academic divisions rather than departments. These also would bridge the chasm between students and faculty in the career and transfer programs by including within them responsibility for each of the logically related technical programs offered by the institution. Examples which Wiegman cites for accomplishing this include the fact that "many of the health-related occupations... such as laboratory technician, radiologic technician,radioisotope technician fall very naturally in the division of science and mathematics and related technologies... many public and personal service occupations -- social service aide, teacher aide... fall in the division of social sciences and related technologies...." He notes the list can be extended "limited only by one's own ingenuity and willingness to try the plan."

Pertinent to issues raised in this sub-section, Wiegman foresees a member of positive outcomes resulting from such an organization of academic responsibilities. They include a structured intercommunication and fostering of understanding of program purposes among career and transfer faculty; the charging of deans of instruction and divisional chairmen with providing leadership and setting priorities in a more unified fashion for all these related academic programs;

and by blurring the lines of distinction separating career and transfer programs, the encouragement of students to at least sample courses from each, and facilitating their ability to change their majors from one to another of these two categories of academic purpose.

While impediments both of tradition and substantive disagreement will no doubt hamper the adoption of this organizational format in the community colleges, it also must be acknowledged that even philosophic agreement with its principles may have little outward effect on the organization of the academic programs in the proposed centers. Most community colleges recruit their staffs for the career programs on the basis of their having acquired their subject matter proficiency "on-the-job" in industry. The writer concurs with this recruitment approach and agrees that this would indicate that the centers should not offer subject matter preparatory sequences for the many varied career program offerings found in comprehensive community colleges. This raises the valid question, if subject matter sequences for such would-be faculty are not offered by the centers, as to what identifiable function and contribution they can make towards building the desired attitudes and comprehension of career-transfer program interrelationships.

For the writer, the answer lies in the centers' seeking to achieve the maximum feasible impact despite this recognized limitation. An obvious activity would be to provide inservice sequences for career program faculty to strengthen their understanding and skills as teachers. Practical experience and expertize in civil technology, for instance, offers no necessary insight into the problems and procedures of the teaching-learning process. Prospective or already employed career program faculty should be able to elect aspects of the centers' regular programs like the supervised professional internships, the case study workshops, and the small group seminars.

Another important function would lie in assisting such faculty to obtain a broad overview of their subject matter fields, where recent work experience may have been rather specialized in focus (e.g., civil technology itself consists of activity in at least five different fields, and practicioners can have lost touch with recent developments in one or more of them.) In addition, even full, up-to-date knowledge of a career field does not necessarily mean an expert practicioner will not need assistance in conceptualizing the material to be covered, and familiarizing himself with available texts and other aides for course presentation purposes. While it would be impractical and in the writer's opinion undesirable to expect the centers to themselves provide such refresher type overview preparation in the many career program fields, they should identify and establish working relationships with those academic institutions, business centers, and industrial training complexes where good training of this nature can be obtained. (E.g, Southern Illinois University for aerospace technology, Rochester Institute of Technology for mechanical technology, Western Electric Corporate Education Center for communications technology.) The centers would arrange for enrollment in intensive short term training programs offered by these institutions, and exercise those functions necessary to the maintenance of their quality and suitability in relation to the needs of their articulating community colleges.

The centers' responsibilities in relation to the preparation of career program faculty would, therefore, still be manifold. They would diagnose the educational needs of prospective and working faculty in each of the above noted areas, and prescribe suitable individualized reinforcement programs. (Consideration could be given to adopting and modifying a practice utilized at San Jose State College of signing contracts defining the objectives and commitments of each of the parties involved, namely the center, the student, and even a sponsoring community college where this is the case.) The sequences offered could be on a part-time or full-time, degree or non-degree, basis depending on demand. The willingness and ability of the articulating colleges to encourage and/or subsidize the enrollment of their prospective and present career program faculty, also would influence the extent and nature of these sequences. The often greater maturity, familial responsibilities, and earning capacities of career program faculty intensifies the problems involved in their recruitment and acquisition of additional preparation for teaching duties. Arrangements for financial support and/or released time to facilitate such training would rest with those community colleges cognizant of its contribution to the improvement of their programs.

It could be expected that in time the centers would build a bank of knowledge about the needs of such faculty which could assist them and the community colleges in further strengthening and targeting such educational programs. Above all, active programs of this nature would insure the presence in the centers of persons oriented towards the career programs, and thus permit and encourage opportunities for their integration into preparatory processes with other prospective community college faculty.

VI. Institutional Setting, Financing, and Scope of Effort

A. General Considerations

A possibility raised in the original project proposal to the Office of Education was that "a new college... is needed, to bring together... a competent and dedicated staff, to develop a new model for educating prospective junior college teachers." The desirability and necessity for such an approach was not borne out by this study's investigations, if by that is meant the establishment of a completely autonomous and presently non-existent institutional entity. Creation of a new physical plant appears particularly questionable: subventions for graduate school capital purposes have been eliminated from the current federal budget and are not likely to be restored in the near future; state governments are already hardpressed in apportioning their budgets available for higher education; private foundations traditionally have not been overly enthusiastic about such use of their funds, and the trend of late has been to further restrict grants of this nature.

Moreover, as the original proposal also noted, major advantages could accrue to the proposed centers if they are located within established colleges or universities. This would offer immediate opportunities for technical assistance, academic status and accreditation which would not be possible if the centers are established independently from scratch. The prestige of the centers and the credibility of the training offered will depend to some extent on the availability of a critical mass of educational resources which cannot be created overnight. The centers will have to draw to some extent upon the staffs and programs of established graduate institutions if their subject matter sequences are to provide the requisite range of courses, and the flexibility necessitated by an individualized approach to the elaboration of each student's program.

For all of these reasons, it is recommended that the centers be so locused and organized to permit them to pool the academic and research resources of established graduate schools, with the "laboratory" resources represented by their articulating community colleges. This would mean launching the centers as adjuncts to functioning colleges and universities possessing well-developed undergraduate and graduate school facilities. This is especially desirable if one of the purposes of such initiatives is to furnish demonstration models for additional subsequent efforts to prepare community college faculty. Successful experience in the initial centers will be more readily replicated if they occur within the mainstream of U.S. higher education rather than in settings that are "sui generis," as might be the case if completely autonomous centers were to be founded.

At the same time, the overwhelming consensus among the many persons consulted underscores the importance of the centers being afforded a semi-autonomous status within their host institutions. This would, of course, impose on the centers the necessity of meeting such conditions as would result from being a part of established complexes of educational facilities. The terms of their relationship would thus have to reserve to the centers sufficient independence and control over their affairs to permit the creation of a distinguishable, qualitative enterprise within such complexes. The conclusion which emerged from discussions with leaders in the community college movement is that this normally will not be possible if the new centers are submerged within the graduate faculties of existent institutions, and subject to their usual standards and approval procedures.* The overwhelming opinion was that too many significant departures from present philosophy and practice are called for to expect the centers will be given sufficient rein to institute the desired changes under these circumstances. It was noted that many university educators are either skeptical of, or even hostile to, the thrust of community college education. It is felt that graduate faculties offering the traditional Ph.D. would fail to give high priority, or treat as second class, any alternative program leading to a Ph.D. or Doctor of Arts. In order to protect against such foreseen eventualities, it was therefore stressed that the centers should function as semi-autonomous "bubbles" within the host institutions, and report directly to its president.

With respect to the financing of the centers, there was general concurrence that the only appropriate continuing support source would be the host institutions themselves with the assistance of higher education or community college agencies at the state level. The host institutions would be such colleges and universities as recognize the validity of the centers' objectives, and are prepared to assign them a portion of their resources. Although not exclusively, such host institutions will usually be tax-supported and hence have some obligation to assist the community colleges, which are themselves overwhelmingly in the public sector. Moreover, since state agencies are playing an increasingly prominent role in providing leadership, coordination and financing for community college activity, they also constitute a logical source of long range financial support for the centers.

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*A few authorities felt it could be feasible for the centers to function within regular graduate faculty governance channels, provided that the project's goals enjoy the manifest and enthusiastic support of the host institution's senior administrators. While this opinion was exceptional, it should not be discounted where there is indication that such sympathetic attitudes do prevail.

Support by state agencies was not viewed as precluding regional or multi-state arrangements for support of particular centers where the logistics of teacher demand and geographical factors indicated their utility. In addition, there was agreement on the importance, even if not the indispensability, of securing federal and private foundation funds to assist the centers during at least their formative period. Such funds were regarded as particularly useful if they afforded the centers a minimum one year incubation period in which to acquire staff and develop their precise programs. It also was suggested that manufacturers of learning resource, multi-media, computer, and other categories of educational hard and software, might be agreeable to providing such material to the centers at a substantial discount, on the basis that its availability would be an effective form of advertising among prospective faculty. Finally, in budgeting for the program at each center, it was suggested that the minimal scope of activity might draw upon the resources contributed by the host institution and state agencies, with additional activity made possible by contributions from other sources.

1. An Investment Not a Probe

Regarding the number of centers launched initially, it is evident that beginning with too many would dissipate available leadership and non-local financial resources. Extensive development of the proposed centers, moreover, cannot be justified until the initial centers give evidence of their effectiveness. Conversely, the required impact on community college affairs cannot be achieved if the initial efforts are essentially tentative and hesitant. Therefore, more than one demonstration center should be launched (3-5 was the figure generally advocated by those with whom the matter was discussed). Dudley Boyce, President of Golden West College, concurs in noting that the situation requires "a major investment by our nation in such faculty preparatory objectives and processes, not just a probe." He adds that "the job of teacher education for the community colleges can hardly be expected to meet the level of need unless the effort takes on regional identities across the nation," and this suggested level of initial effort is presented "as a challenge to the U.S. Office of Education."

Similar support for these propositions is expressed by such persons as Gustave Arlt, President of the Council of Graduate Schools, and Sidney Tickton, Executive Vice President of the Academy for Educational Development. In conversations with the writer they advanced these justifications for simultaneously launching several centers: the dimension of the problem calls for a broad-guaged rather than an isolate approach; the federal government and the major private foundations generally make their funding decisions on the basis of a project's contribution to the solution of problems with nationwide implications; starting up in several selected settings and manners would make possible comparative analyses of their merits and problems.

In assessing the dimension of the demand for community college faculty, it has been noted that such professionals could become the largest segment of higher education teachers in the nation. Even if this does not become the case, a preliminary study by the AAJC indicates the forthcoming need for such teachers is nonetheless formidable.* In brief, the analysis indicates that compared with the approximately 84,400 full and part-time faculty teaching in AAJC member colleges in the 1967-68 academic year, that number in the subsequent decade will rise to a "low estimate" of 255,400 or a "high estimate" of 406,000. (The lower figure is based on the 11.4% increase in teaching faculty between academic year 1966-67 and 1967-68; the higher figure is based on the 21.47% average growth rate experienced over the previous five year period.) This would mean that a low of approximately 171,000, or a high of some 322,000 new teachers (including both replacements and additional staff) will be working in these colleges by 1977. Another way of assessing the potential demand upon community college teacher preparation institutions is to note that the yearly incremental need for new faculty will range from a low of 17,000 to a high of 32,000, In-service programs for upgrading and skills refreshment of already employed faculty would obviously add to the challenge, and further substantiate the call for a major investment, not a probe by the agencies concerned with the development of a high quality community college system in the United States.

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*The findings are contained in a memorandum of April 28, 1969 from Derek Singer to AAJC Executive Director Edmund Gleazer, Jr., entitled "Information for National Advisory Council on Education Professions Development." Although the memorandum's prognostications are acknowledged to be the result of a process of "educated guesswork," they are carefully drawn and contain the most authoritative data the writer was able to locate.

2. Organization and Management of the Centers

The importance of the centers' functioning as semi-autonomous entitities within their host institutions has previously been discussed. In addition, it is recommended that their major policy and governance responsibilities be vested in boards of trustees composed of an equal number of representatives from the host institutions, the centers themselves, and their articulating community colleges. It will be necessary to afford the centers' programs and their students the greatest possible degree of visibility, without isolating them from the intellectual and social life of the rest of the campus. The host institutions would be called upon to provide physical facilities, and liaison and other supporting staff, in addition to a minimal budgetary commitment. They also must accord the centers' programs the academic status, course credit and degree authorizations noted earlier. Finally, the centers must be permitted to organize along the divisional lines previously discussed.

The curriculum of the centers would consist of a basic core of teaching competency and academic subject matter sequences and experiences provided by a full time center staff. These offerings would be supplemented by such other pertinent disciplinary and interdisciplinary courses as are provided in the regular programs of the host institutions. The need to create new programs or courses will, of course, vary from center to center.

A problem the centers will face is finding ways to encourage continuing experimentation in their approaches, at the same time as standards, regularized procedures and bureaucratic organizational structures inevitably come into existence. For this reason, it would be a mistake to delegate concern for institutional development and experimentation to a separate committee or group of administrators. The centers will benefit if all elements in their communities, including faculty and students, participate in the process of reexamination of old and testing of new programs and methods. Administrative machinery, budgetary support and release time policies should be established to support these processes.

This study has previously identified two committee functions which will be necessary in the centers (there will, of course, be others). The first is a Pre-College Teaching Committee to develop and maintain flexible guidelines to regulate the framing of the students' academic programs, and set minimal requirements for the award of degrees. Another would be discharged by faculty advisory committees assigned to each student and composed of one teacher from his field of academic concentration, and one from the staff of the division responsible for the teaching competency sequences. These latter committees would evaluate the students' previous education and experience, establish the level at which they would enter the centers, approve their choice of academic programs, and assist in the supervision of the professional internships and other off-campus experiences.

Many references have been made to the role and responsibilities of the articulating community colleges in the governance and conduct of the centers' programs. One fundamental assumption upon which the ultimate success of the centers rests is that there are colleges which recognize the necessity for a different faculty preparatory process. It would follow that such colleges will give preference in their hiring practices to persons graduating from the centers. They also may be obliged to modify or adopt faculty recruitment, promotion and compensatory policies in keeping with the objectives of the centers. The articulating colleges' responsibilities with respect to the professional internships have been outlined in some detail. It likewise has been noted that these colleges should be directly involved in the research and development activities of the centers, not only to keep themselves abreast of recent educational developments, but also to help guard against the growth of esoteric attitudes and preoccupations removed from the reality of their own concerns.

Implicit throughout the study has been the concept that the centers will serve as an instrumentality for the improvement of the articulating colleges activities, which in turn requires their conscientious participation in the centers' foundation, operations and ongoing development. The articulating colleges should be in basic accord with the goals of the centers, with the realization that disagreement on particulars can be addressed through their participation in the governance process.

Above all, however, it will be the responsibility of the articulating colleges to provide the centers' graduates with a working environment that will encourage their further growth. This will include attention to their own administrative behavior, funding priorities, released time policies, and explicit procedures supportive of experimentation in instructional activity. It will call for an atmosphere which encourages discussion of the problems, aspirations and achievements of their faculty; it will require a non-threatening setting which will stimulate behavioral change and the sharing of ideas.

B. Suggested Sites

The writer's investigations resulted in first hand evidence that several existing academic institutions would be extremely interested in "hosting" centers incorporating objectives and qualities similar to those which have been recommended. It is suggested that some consideration be given, in locusing the initial centers, to the likelihood that if they can be related to very prestigious graduate schools, their efforts will gain impetus from the present status of these institutions. Such status "spin-off" can offset the "disapproval" which the centers may encounter from other parts of academia. Moreover, none of the initial centers should be so fully a creature of its institutional environment that its experience and structure will be impossible to duplicate in similar fashion elsewhere. At the same time, as previously noted, the mix of the initial centers should be characterized by some variety of institutional settings. Although it was stated in the introduction that it was not possible to conduct an exhaustive inventory of possible locuses, the following specific site possibilities are recommended because they incorporate an appropriate level of institutional interests and resources:

Western Washington State College: This institution is already engaged in an EPDA supported project, together with six neighboring colleges, to prepare community college teachers in a number of subject matter fields. More than half a dozen of their graduate programs are structuring special curricula for preparing community college teachers, and its Graduate Council is considering still additional programs. It is conducting a trial program for community college administrators, and has offered summer workshops for community college teachers in the sciences. It has received legislative authorization to offer degrees through the doctoral level. It is working closely with local county officials and the State Board for Community College Education to establish an experimental community college which might function as a laboratory for the whole Washington State system. Locusing one of the proposed centers at WWSC would enjoy the full support of the State Board Director, who has indicated willingness to provide budgetary support for its establishment and operations. WWSC's senior administrators are thoroughly conversant with this study's proposals, and report they "like what we read." This locus is highly recommended because of the existence of aggressive leadership, an appetite to serve, and a willingness to commit significant support from both State and College resources.

University of Michigan: Although in-depth conversations were only recented conducted with representatives of this institution's Graduate School, Graduate School of Education, and Center for the Study of Higher Education, reactions have been extremely encouraging. The University's past involvement in community college affairs has been extensive. There is very profound accord on all the major precepts and recommendations contained in the study. It represents an attractive configuration of resources, related concerns, and prestigious leadership, and should be strongly encouraged to establish one of the proposed centers.

Rutgers, The State University of New Jersey: Conversations held with Deans of the Graduate School of Education and the Graduate Faculties indicate their great receptivity to both the general idea of establishing a community college faculty preparation center, as well as the specific elements proposed in this study. The New Jersey State Department of Higher Education would be receptive to the establishment of such a center, as would the presidents of the fourteen operating community colleges. Because it possesses a relatively new system of community colleges, with a high degree of interest expressed by all logically participative institutions and agencies, New Jersey would constitute a very challenging locus for one of the proposed centers.

Richard Stockton State College: A not yet operating new institution in the Southern part of New Jersey, RSSC offers an attractive alternative locus in that State. Its President has been an active contributor to the development of this study's objectives and recommendations. Because it is a new institution it will take time to build all the resources necessary for the contemplated full range of the proposed centers' activities. On the other hand, the development of such a center will not be impeded by the existence of resistant traditions and structures. RSSC incorporates interesting alternative characteristics from those possessed by the previously discussed site possibilities, and should be considered along with Rutgers University in the context of establishing a center to serve the needs of New Jersey's community colleges.

The Claremont Colleges: The only private institution herein discussed, The Claremont Colleges represent an attractive locus possibility for other reasons as well. Its organizational structure of cooperating cluster colleges could facilitate a center's establishment and afford it considerable independent status. It has had a tradition of interest and relationships with the important group of community colleges in its area. Its constituent colleges are philosophically and pedagogically sympathetic to many of this proposal's ideas, particularly those dealing with interdisciplinary approaches to curriculum construction. The Dean of the Graduate School is an active participant in nationwide efforts to develop alternate programs for the preparation of college teachers, and has been instrumental in gaining a sympathetic audience for this study's objectives and recommendations among key officials of his own institution.

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The above comments are intended only to highlight the attractive features of each institution as a site possibility. A serious proposal intended to secure financial support to assist them in establishing centers should, of course, be more extensive. Nor should these suggested sites delimit further explorations by the Union for Research and Experimentation in Higher Education. However, the writer's final recommendation is that a consortium be formed among the institutions interested in establishing the proposed centers. Such a consortium could take as its common purpose the further definition and elaboration of the centers' objectives and methodologies; develop joint proposals for federal, foundation and private support; and function as a stimulator and catalyst in the formation of additional centers in the future.

APPENDIX A

List of Analogous Programs Examined

Existent Programs:

Antioch-Putney Graduate School of Education. Director, Roy P. Fairfield.

Carnegie-Mellon University: program for the preparation of two and four year college teachers.

Illinois State University: Internship in College Teaching.

Midwest Technical Education Center: Project for the Preparation of Teachers for Two Year Post-High School Semi-Professional Occupational Programs. (A joint project of the Junior College District of St. Louis, St. Louis County and Southern Illinois University.) Director, Charles R. Hill.

orth Carolina State University: College Teacher Fellowship Program.

Rochester Institute of Technology: Center for Community College Faculty Development. Director, John T. Henderson.

San Francisco State College: Junior College Student-Teaching Program. Coordinators, Meyer M. Cahn and Richard Axen.

Sarah Lawrence College: Graduate Studies Program for Preparation for College Teaching.

University of California, Berkeley: Junior College Leadership Program. Director, Dale Tillery.

University of California, Los Angeles: Junior College Teaching Internships Program. Director, Arthur M. Cohen.

University of Colorado: Community College Leadership Program. Director, Thomas M. Shay.

University of Florida, Institute of Higher Education: Southeast Junior College Leadership Program. Director, James L. Wattenbarger.

University of Iowa: Annual Community College Workshop. Director, Duane D. Anderson.

University of Miami: Diplomate in Collegiate Teaching Program. Director, Sidney L. Besvinick.

University of Southern California: Junior College Leadership Program. Director, Leslie Wilbur.

Yale University: Master of Philosophy Program.

Proposed Programs:

American Association of State Colleges and Universities, Committee on Graduate Studies: proposal for "The Specialist Degree" (October 8, 1968).

California Coordinating Council for Higher Education: Staff Report on "Approaches to Preparing Prospective College Teachers" (December, 1968).

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Council of Graduate Schools in the U.S., Committee on Preparation of College Teachers: "The Doctor of Arts Degree" (December 5, 1969).

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Lehigh University: "A Model Program for the Preparation of College Administrators," Richard C. Richardson, Jr. (undated)

Mid-Missouri Associated Colleges: Proposal for the Cooperative Training of College Teachers (undated).

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Pennsylvania State University: EPDA proposal "A Teacher Preparation Project for Community College Personnel Serving the Disadvantaged" (July 13, 1969).

University of California, Berkeley, Assembly of the Academic Senate: proposal for a Candidate in Philosophy degree (undated).

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